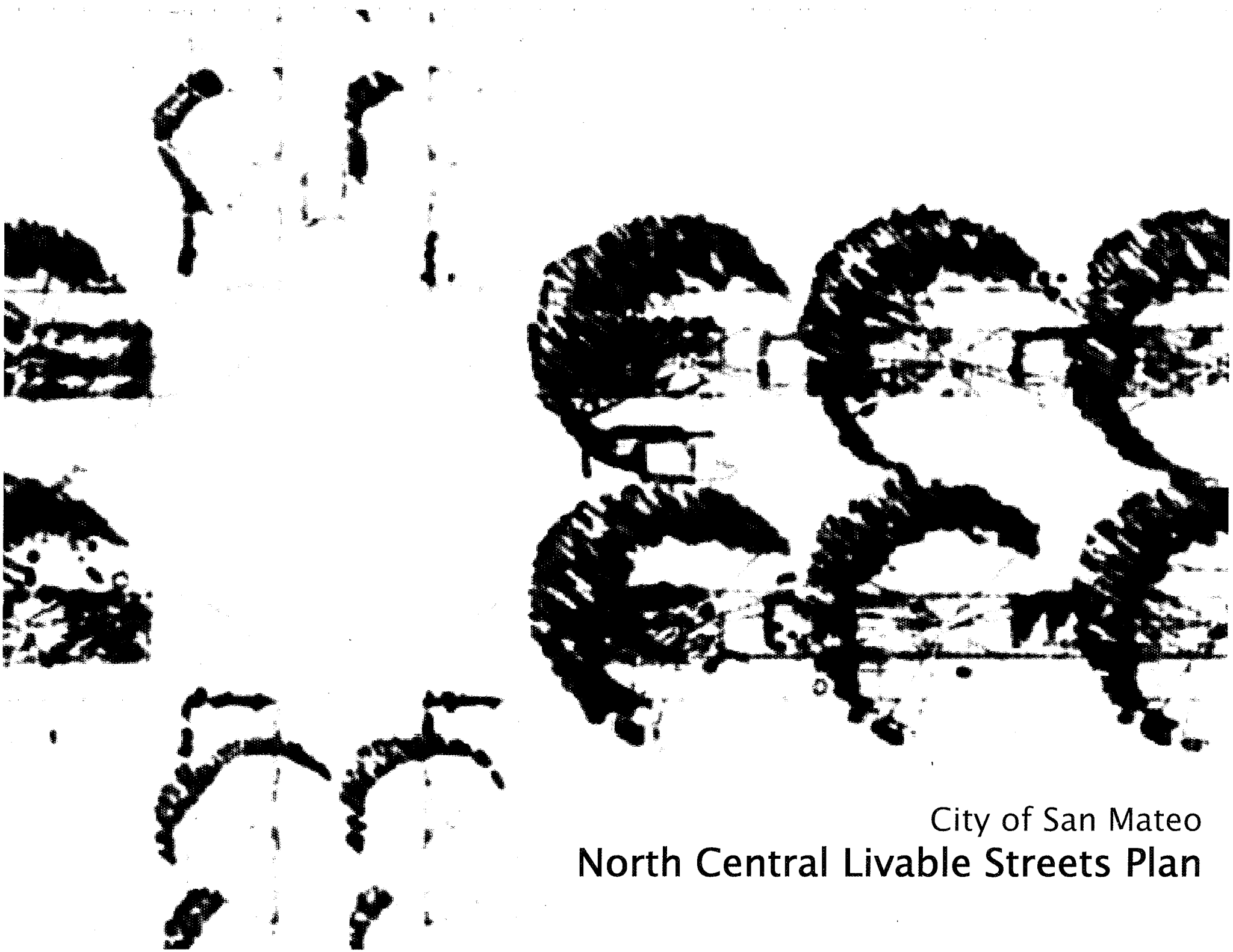


City of San Mateo

North Central Livable Streets Plan

City of San Mateo

North Central Livable Streets Plan

Prepared by:

Kendall Planning & Design

and

Freedman Tung & Bottomley Urban Design

Prepared for:

City of San Mateo

Approved by the San Mateo City Council
June 16, 2003

CONTENTS

1. LIVABLE STREETS PLAN GOALS & PLANNING PROCESS

This Livable Streets Plan is intended to guide future capital improvements in the North Central area such as street improvements and to increase the safety, convenience, and attractiveness of pedestrian, bicycle and transit use. The plan is conceptual and is meant to provide prototypes for possible future improvements. Implementation of specific street improvements will be reviewed and refined on a street by street basis, and modifications to conceptual designs will be made where needed to respond to specific conditions.

1.1 LIVABLE STREET PLAN GOALS

The primary goals of the North Central Livable Streets Plan are to:

- Establish streetscape and roadway design guidelines that enhance pedestrian and bicycle connections, promote the concept of "healthy streets" within North Central San Mateo, and help to create a system of integrated routes while providing a unifying design character to the streets and public spaces of the neighborhood;
- Improve pedestrian, bicycle and vehicular access by creating safe and direct connections to transit centers;
- Increase transit ridership and encourage use of alternate modes of transportation;
- Encourage well-planned, thoughtful, pedestrian-friendly design in the North Central neighborhood that takes advantage of the nearby transit options by enhancing links to public transportation; and
- Provide opportunities for civic engagement by involving residents in neighborhood planning efforts.

1.2 WHAT IS A LIVABLE STREET?

The concept of planning for "Livable Streets" is both very new and very old. Increasingly, communities and planners recognize that the role of streets is more than simply to accommodate automobiles as quickly and conveniently as possible. Well designed and maintained streets can contribute substantially to the safety, convenience, and attractiveness of all modes of travel, from walking to biking and transit use. In addition, they can provide orientation, encourage a sense of community as well as privacy, foster neighborly responsibility, reduce noise and other disturbances, and enhance the economic value of adjacent property.

1.3 ADDITIONAL GOALS FOR LIVABLE STREETS INCLUDE:

- Provide alternatives to automobile travel, especially for those who don't drive or don't have access to a car.
- Support regional goals to increase multimodal travel and reduce traffic congestion.
- Improve pedestrian and bicycle accessibility
- Support public social contract.
- Provide orientation and identity to the neighborhood.
- Improve safety from traffic accidents, pollution, and crime.
- Improve physical comfort such as protection from extreme temperature, wind, rain, sun, and shade and reduce nuisances such as traffic, noise and pollution.
- Provide spatial definition and high quality of construction and design in streets and adjacent private development.
- Maintain the quality of street environments and public investment in streetscape improvements over time.

1.4 THE PLANNING PROCESS

This Plan was prepared with the participation of residents of the North Central neighborhood, through two community workshops held on October 11, 2001 and February 5, 2002. In addition, a large team of resident volunteers and City staff performed an initial survey of the three study streets to identify potential problems and opportunities with street design in the area.

The initial workshop focused on exploring the character of the three major types of streets in the North Central neighborhood and identifying features which affect the safety, convenience, and attractiveness of pedestrian, bicycle, and transit use for travel within the neighborhood and to nearby downtown destinations. The community was asked to identify problems and suggest improvements for the three types of streets and to identify overall circulation routes within the neighborhood.

The second workshop provided an opportunity to discuss conceptual designs for the three street types, using Delaware, a major arterial, Tilton, a heavily traveled collector street, and Grant, a local street, as examples. Workshop comments from community members were detailed and thoughtful. Strong preferences were noted, along with the reasons for preferences.

Following the community workshop, City of San Mateo staff reviewed the proposed street designs in light of the public comments and added additional comments and suggestions to respond to technical concerns such as implementation and maintenance. The proposed designs and plan language have been refined based on this input.

1.5 PLAN CONTENTS

The Livable Streets Plan includes the following major sections:

1. PLAN GOALS AND PROCESS
   Identifies the goals of the Livable Streets Plan and describes the Planning Process

2. NEIGHBORHOOD STREET NETWORK
   Identifies the Street Network for the North Central neighborhood

3. ISSUES & OPPORTUNITIES ANALYSIS
   Discusses overall issues and opportunities affecting livability of North Central streets

4. GENERAL RECOMMENDATIONS
   Includes overall recommendations regarding livable streets, such as signage and orientation, and designation of routes for various modes of travel

5. STREETSCAPE DESIGNS & GUIDELINES
   Includes conceptual streetscape designs for each of the three basic types of streets found within the neighborhood

6. NEXT STEPS
   Identifies next steps for implementing street improvements and suggests additional implementation actions including revisions to various policy documents to implement LSP recommendations

2. NEIGHBORHOOD STREET SYSTEM

The attached map of the North Central Neighborhood Street System illustrates the network of various street types found in the North Central neighborhood. For the purposes of this Plan, the North Central neighborhood is defined as the area shown on the map, generally bounded by Peninsula to the north, Highway 101 to the east, Second Avenue and San Mateo Creek to the south, and Railroad Avenue to the west.

Within this district, there are a number of different types of streets which serve different functions. These streets include "arterial" streets carrying relatively high volumes of through traffic, "collector" streets which carry a lower volume combining local and through traffic, and "local" streets carrying a low volume of traffic traveling to or from a nearby destination. More detailed descriptions are contained below.

Arterials:
Arterial streets link residential and commercial districts, carrying heavy through traffic. Because of the high volume of traffic on arterials, adjacent land uses are often commercial and multifamily residential uses. Major bus routes often travel along these routes due to their connections to the rest of the city and density of development.

Collectors:
Collector streets link neighborhoods to arterials and are not intended to carry heavy through traffic. Unfortunately, increasing traffic congestion on arterial routes often results in use of collector streets as convenient substitutes for arterials. Collectors carry less traffic than arterial streets and more than local streets. In many older neighborhoods, they are not any wider than local streets.

Local Streets:
Local streets serve only neighborhood traffic, traveling between local residences, businesses, or other facilities. They are often narrow with frequent driveway openings and are designed for low vehicle speeds.

As shown in the attached map and as classified in the City of San Mateo General Plan, the arterial and collector streets within the North Central neighborhood include:

Arterials:
- Delaware Street
- Poplar Avenue
- N. Humboldt Street
- Peninsula Avenue

Collectors:
- Monte Diablo
- Tilton Avenue
- Amphlett Boulevard
- Second Avenue

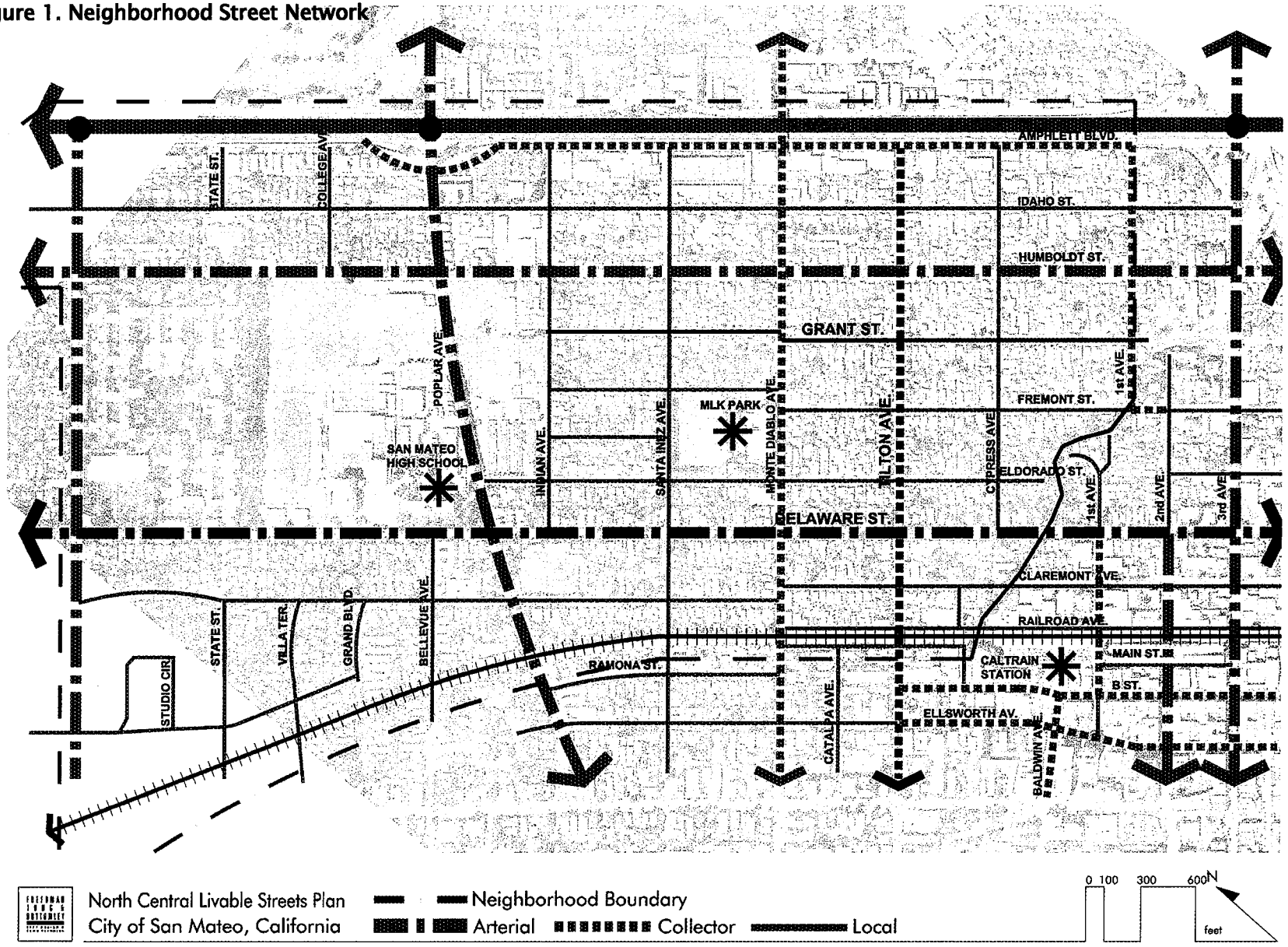
All other streets within the neighborhood are classified as local streets.

For the purposes of this Livable Streets Plan, three streets that are typical of each street type were selected for study and design recommendations. The streets are Delaware Street, an arterial street, Tilton Avenue, a collector, and Grant Street, a local street. These streets were studied to identify issues and opportunities for improving street design.

Conceptual design proposals for streetscape improvements for each street type were prepared and refined with community input and City staff review. The Conceptual Streetscape Designs and related guidelines are included in Chapter 5 of the Plan document.

In addition, in Chapter 4, there are general recommendations for the larger street network intended to improve the overall safety, convenience, and attractiveness of pedestrian, bicycle, and transit use in the neighborhood.

Figure 1. Neighborhood Street Network



NORTH CENTRAL LIVABLE STREETS PLAN

3. ISSUES & OPPORTUNITIES ANALYSIS

3.1 NORTH CENTRAL NEIGHBORHOOD

The North Central neighborhood contains many of the most highly valued elements of a livable community. Once found in many older communities, these elements are now being copied in newer developments under the New Urbanist movement as a way to provide travel choices, provide a range of services to pedestrians, and enhance feelings of community.

The neighborhood is within easy walking or biking distance of downtown San Mateo, with convenient rail and bus access to major employment centers, schools, and shopping throughout the Bay Area. The area was developed in the mid 19th century in a convenient gridded street pattern which is well adapted to pedestrian travel and provides easy orientation. A variety of community uses are within easy walking distance including elementary and high schools, a large park, a performing arts center, and other community centers. Retail shopping is available in the downtown, and small corner markets and larger supermarkets within the area provide nearby shopping opportunities.

North Central contains a range of interesting architecture, primarily from the early years of the 20th century, in a fine-grained development pattern which provides a high degree of visual interest for pedestrians. In many areas, well-established street trees provide shade and a unified appearance to the sidewalk area. In some areas many street trees are missing.

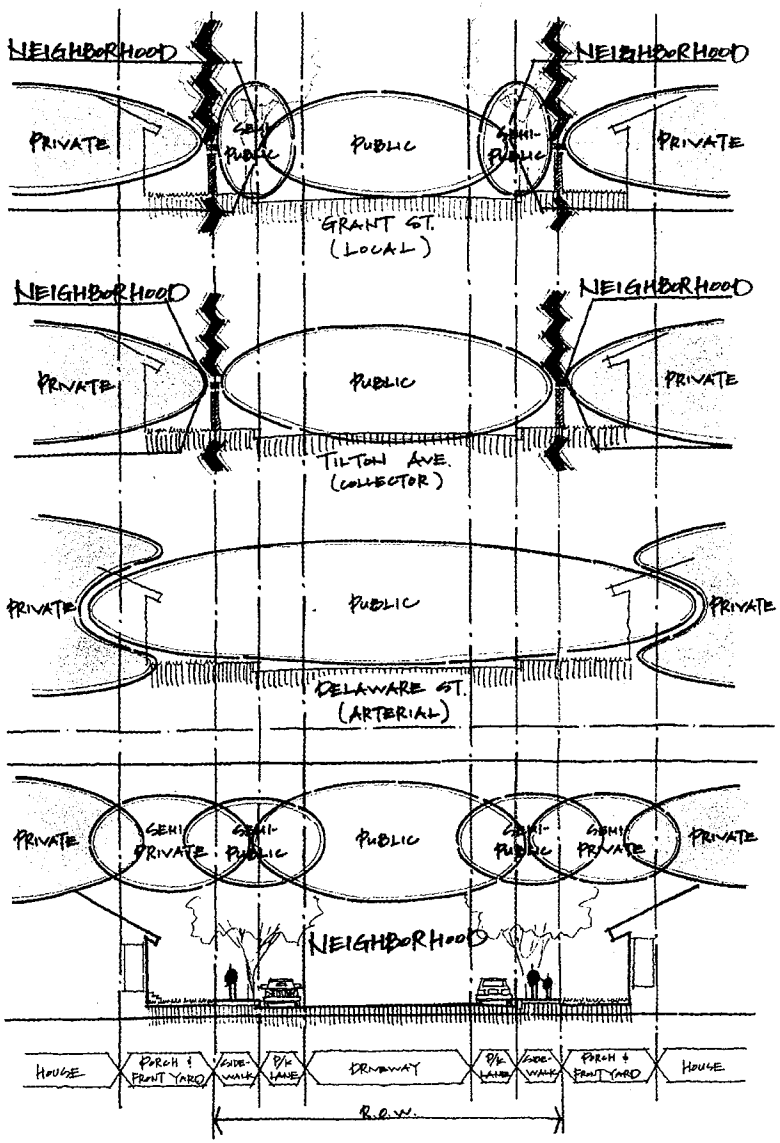
The neighborhood provides a wide array of housing opportunities including rental and ownership at a comparatively affordable level in an area with very high housing costs. The population is very ethnically diverse, as shown by recent Census information.

Some arterial streets such as Delaware and Poplar carry heavy traffic which impacts the adjacent residential uses and threatens pedestrian and bicycle safety. Some of the collector streets such as Tilton and other east/west streets also carry heavy traffic, including trucks, which impact the character of residential streets.

A major issue throughout the area is the lack of a clear transition from public space, such as the street and sidewalk, to private space, such as the houses themselves. In a well-designed pedestrian scaled neighborhood, the transition is made by providing semi-public space, such as front yards, and then a layer of semi-private space, such as porches and building entries. Providing this layering encourages residents to use and maintain these areas and promotes both neighborly interaction and responsibility for the safety and condition of the public street. Street trees, sidewalks, planter strips and parking zones can help separate houses and pedestrians from the noise and danger of passing traffic.

Figure 2 illustrates this buffering, and the Streetscape Design Concepts in this plan provide additional recommendations on how to achieve this effect on the heavily traveled but narrow roadways in the North Central neighborhood.

Figure 2. Public/ Private/ Buffer Space



3.2 RECENT PUBLIC PROJECTS IN AREA

Several recent public projects have been completed and others are ongoing in the North Central and adjacent downtown area. The following projects will help to improve local streets and their bus, pedestrian and transit connections.

- The new Transit Center at the corner of 1st and Railroad Avenue is now in operation as the main CalTrain stop in San Mateo. The Center includes approximately 4,325 square feet of retail/restaurant space.
- The railroad under-crossings at Monte Diablo, Popular, Santa Inez, and Tilton are all scheduled to be replaced or retrofitted. These bridges were built between 1900 and 1902 are in need of repair or replacement. The railroad under-crossing provides under 9' of clearance right now, making it difficult for trucks to travel from downtown to Amphlett via Tilton. Options are being studied for these areas.
- The City is also preparing to implement a number of streetscape improvements within the downtown, specifically between Tilton Avenue and Third Avenue, east of San Mateo Creek, and west of First to Third.
- An ongoing City program is installing sidewalk curb cuts throughout the City on a prioritized basis.
- The Fremont Street Bridge was recently replaced with a new structure. Similar bridge replacements are scheduled for San Mateo Creek crossings at Delaware and Claremont.

3.3 RECENT AND PENDING PRIVATE DEVELOPMENT PROJECTS

In addition to ongoing remodeling and upgrades by owners of single family and small multi-family development in North Central, two larger housing projects were recently completed or are under construction.

- The recently completed Classic Communities development on the 1.38 acre site at the intersection of South Humboldt Street and Second Avenue includes 25 single-family two-story town-homes.
- The Prometheus project, located on a 2.98 acre site between Third and Fourth Avenues and Eldorado and Grant Streets, is currently under construction. The 4-story, luxury apartment complex will include 218 units.

3.4 HISTORIC BUILDINGS AND NEIGHBORHOOD CHARACTER

The residential neighborhoods immediately north and east of downtown San Mateo began to develop when the original boundaries of the town were set in 1862. Early development occurred along Claremont and Delaware (then C and D Streets) near San Mateo Creek and extending south to Third Avenue. Subdivisions just east of Delaware and north of the creek to Poplar expanded the residential neighborhood during the next twenty years. This area, which is now the oldest part of the North Central neighborhood, was referred to as the "Central" neighborhood. Several houses from the late 19th century are found within this area, particularly along Delaware and Claremont Streets between First and Tilton.

Current zoning in the former Central neighborhood area allows higher densities, resulting in the demolition of single family houses and construction of newer multi-unit apartment buildings. Façade changes and additions which are not compatible with the house's historic character have been common as well. Because of the many alterations to and demolitions of original buildings, there is no clearly identifiable historic district which might qualify under National Register requirements. However, there are several blocks with houses dating from the late 19th and early 20th century.

There are a number of historic structures in the greater North Central Neighborhood which are potentially eligible for the National Register (as part of a district or individually) as well as buildings which have local historical significance. These buildings are generally concentrated along Claremont and Delaware Streets. Proposals to alter these structures are subject to discretionary review to avoid negative impacts on their historical significance and integrity.

3.5 RELATED PLANS AND POLICIES

In addition to this Livable Streets planning effort, some related plans have been prepared for areas within or adjacent to the North Central neighborhood. The City of San Mateo's "Vision of the Gateway" was approved by resolution in 1994. It contains streetscape design guidelines for the gateway area which is located between Highway 101 and Eldorado Street and Third and Fourth Avenues. The guidelines suggest parkway or boulevard treatment of these major entries to the downtown. In addition, in 1998 HANCSM had some landscape designers suggest possible planting schemes for the planter strip area. Since this area of the public right-of-way is maintained by the adjacent property owner, it is an important opportunity for improving the attractiveness of streets throughout the neighborhood.

3.6 TRANSIT SERVICE

The downtown San Mateo CalTrain station is located within walking or biking distance of most of the North Central neighborhood. CalTrain provides frequent rail service north to San Francisco and south to San Jose and Gilroy, seven days a week until late at night, resuming early in the morning. The City, in conjunction with private operators, offers shuttle service between the downtown CalTrain station and employment centers.

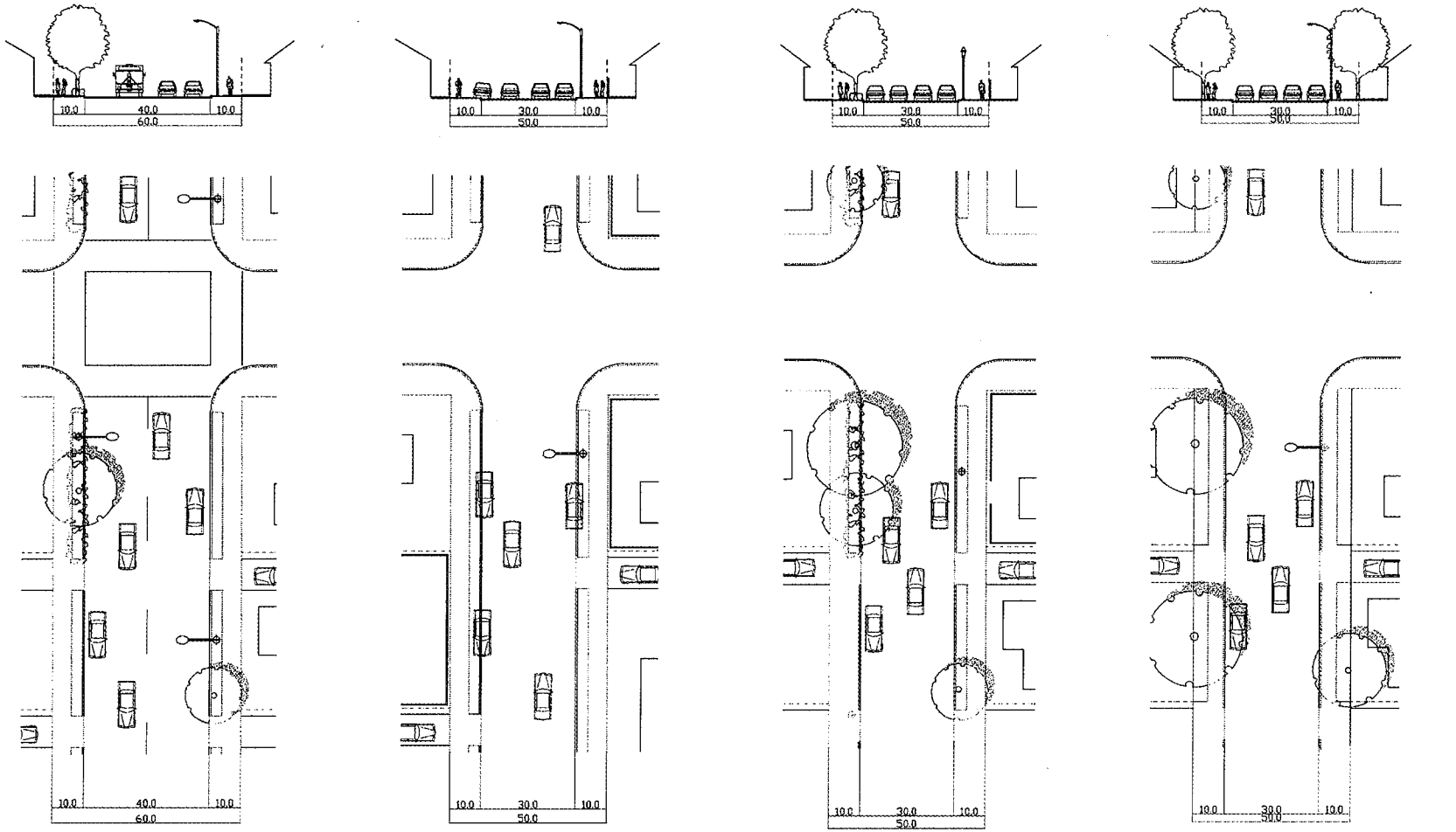
SamTrans Route 292 provides regular and frequent service through the North Central area along Delaware, connecting many of the Peninsula CalTrain stations, the Airport, and major employment areas from Hillsdale to San Francisco. Route 250 runs along 3rd Avenue and links the North Central neighborhood to the east side of 101 and to the College of San Mateo and Hillsdale. Route 295 provides access to the King Center. A bus stop at 101 and 3rd at the southeast edge of the neighborhood provides access to a range of regional service, including the FX, KX, and other express service running along 101 as far north as San Francisco and as far south as Palo Alto. There is also limited service on local routes 53/55 and 58 which operate weekdays, before and after school.

3.7 BICYCLE ROUTES

Existing Class III Bicycle Routes through the North Central area include Delaware Street, Monte Diablo Avenue, and Bellevue Avenue. The General Plan identifies Second Avenue, Humboldt Street, and Peninsula Avenue as proposed bicycle routes. Bicycle "routes" include only signage to guide cyclists and caution motorists of the potential presence of bicycles on these routes . Bicycle "lanes" and "paths", provide semi-exclusive or exclusive access for the cyclists and are generally more pleasant and safer for the cyclists. Alternatively, communities such as Palo Alto have developed "Bicycle Boulevards" which direct bikes to less heavily traveled streets parallel to major routes.

The heavy auto and bus traffic on Delaware Street and limited street width makes Delaware a difficult route for bicyclists. Although Delaware provides convenient north/south access to most of the City, a parallel route such as Claremont would provide safer bicycle access.

Figure 3. Existing Conditions Street Sections and Plans



North Central Livable Streets Plan
City of San Mateo, California

3.8 NARROW COLLECTOR STREETS

The roadway on Tilton Avenue between San Mateo Drive and Delaware is only 32' wide (several cars park on the curb near B and Tilton) and is only 30' wide between Delaware and Amphlett. The narrow street can result in impaired visibility if cars are parked near the intersections and restricted travel lane width where cars are parked on both sides of the street. Monte Diablo (also classified as a collector) and Santa Inez (classified as a local street) are also 30' wide roadways between Delaware and Amphlett.

3.9 TRUCK TRAFFIC

The service commercial and light industrial uses along Amphlett Boulevard generate a certain amount of truck traffic through the neighborhood. The City is currently reexamining existing truck routes as part of the General Plan update. The Police Department has requested that the City install truck route signs throughout the City to direct truck traffic to those routes and away from neighborhood streets, which could help to reduce truck impacts.

3.10 TRAFFIC ACCIDENTS AND HAZARDS

The bulk of auto injury accidents in the North Central neighborhood occur along Poplar Avenue; in particular, the intersections of Poplar Avenue at Humboldt Street and Idaho Street have been the sites of multiple auto injury accidents. Other heavily traveled intersections along Poplar, Peninsula, Tilton, Delaware and Claremont have also been the site of recent collisions.

Other intersections of concern in the North Central neighborhood include Tilton Avenue at Railroad Avenue, and Claremont Street at Poplar Avenue, Tilton Avenue, and Fremont Street. Police officers cited problems of right-of-way, narrow roadways, running red lights and excessive speed as traffic hazards. Hazards from speeding vehicles have been noted on many roadways throughout the area, particularly on Amphlett, Humboldt, Poplar Avenue, and Delaware Street.

3.11 CRIME

In general, criminal activity in the North Central neighborhood appears to be more prevalent on the smaller local streets – Idaho Street, Grant Street, Monte Diablo Avenue, Claremont Street. The most commonly reported crimes are burglaries and theft (personal, residential, vehicular), and destruction of property (e.g. graffiti, broken windows).

Drunk driving citations are more frequent along Poplar Avenue and Delaware Street, two of the larger arterial streets in the neighborhood, and along Tilton Avenue, a medium-sized collector street.

Violent crimes do not appear to be common on the streets of North Central San Mateo.

3.12 ON-STREET PARKING

Police and Public Works Staff have indicated that there is a very high demand for on-street parking. This seems to be due to relatively high household sizes, with several drivers and vehicles, combined with older housing stock with limited off street parking. Community members confirmed the general shortage of convenient parking, particularly in the evening when most residents are at home.

3.13 COMMUNITY & CONSULTANT SURVEY RESULTS

In order to assess the typical existing character for each type of street, a "typical" arterial, collector, and local street was selected for a survey by a group of city staff and community volunteers. The surveyors used a standardized survey form to collect information on a wide range of issues related to the streetscape. Results are discussed for each of the three streets below. These observations were combined with those of the consultant team to produce the Issues and Opportunities Analysis Map.

3.13A COMMUNITY SURVEY OBSERVATIONS: GENERAL COMMENTS

In general, the most common negative attributes observed in the streets surveyed were the paving and/or neglect of planter strips and cracked sidewalks.

While the existing conditions do not generally appear unsafe for vehicular travel, the level of bicycle- and pedestrian-friendliness should be improved.

On-street parking did not generally appear to be a problem during the survey hours, however this survey was conducted during typical working hours on a weekday. Police officers indicate that there is a very high demand for on-street parking throughout the neighborhood, which was corroborated by community members at workshops.

The garbage company's recent experiment of initiating large item pickup by appointment only has had the negative effect of creating the appearance that the neighborhood is in a constant state of spring cleaning. Surveyors noted large household appliances, car parts, and furniture at the curb of at least one house on almost every block.

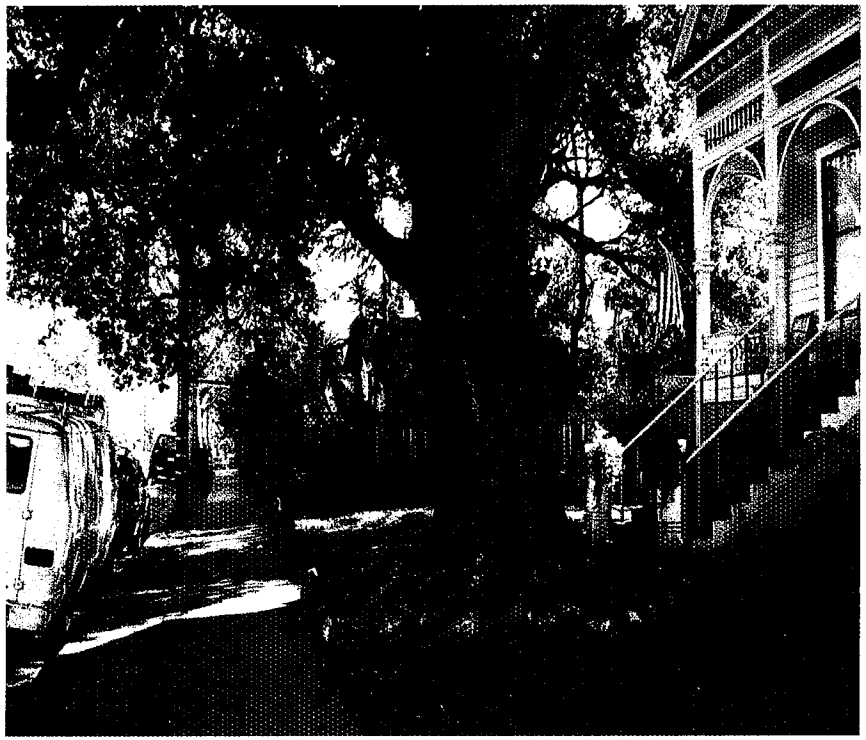
Tall (> 3 foot) fences along front property lines are common throughout North Central and have the effect of creating a pedestrian unfriendly environment.

In most cases, the streetlights provided are standard cobra head fixtures. There are a few older decorative light fixtures, but these fixtures have been placed atop stylistically incompatible standard anodized aluminum poles, and in many instances, the glass in these light fixtures has been broken.

3.13B CONSULTANTS GENERAL OBSERVATIONS

A major issue throughout the area is the lack of a clear transition from public space such as the street and sidewalk, to private space, such as the houses themselves. In a well-designed pedestrian scaled neighborhood, the transition is made be providing semi-public space, such as front yards, and then a layer of semi-private space, such as porches and building entries. This layering can encourage residents to use and maintain these areas, which promotes both neighborly interaction and responsibility for the safety and condition of the public street.

3.14A COMMUNITY SURVEY OBSERVATIONS: DELAWARE STREET (ARTERIAL)



Historic house and large tree in front yard of a house along Delaware

While Delaware Street is designated as a bicycle route, the on-street parking and volume and speed of vehicular traffic create a challenging environment for bicycle riders.

In addition, of the streets surveyed, Delaware Street is the only street with posted bus stops. In some areas, the bus stops have been located too close to driveway curb cuts on narrow portions of sidewalks which has the potential of making bus riders feel conspicuous/awkward or unsafe. Many bus stops do not have trashcans.

Regarding wheelchair accessibility on sidewalks, the survey team noted an irregular pattern of wheelchair accessible curbs. In some locations, accessible curbs appeared only on one corner of a crosswalk creating safety and functionality issues. Since the survey, the City has completed improvements to many inaccessible sidewalks in North Central as part of ongoing efforts to improve street safety throughout the City.

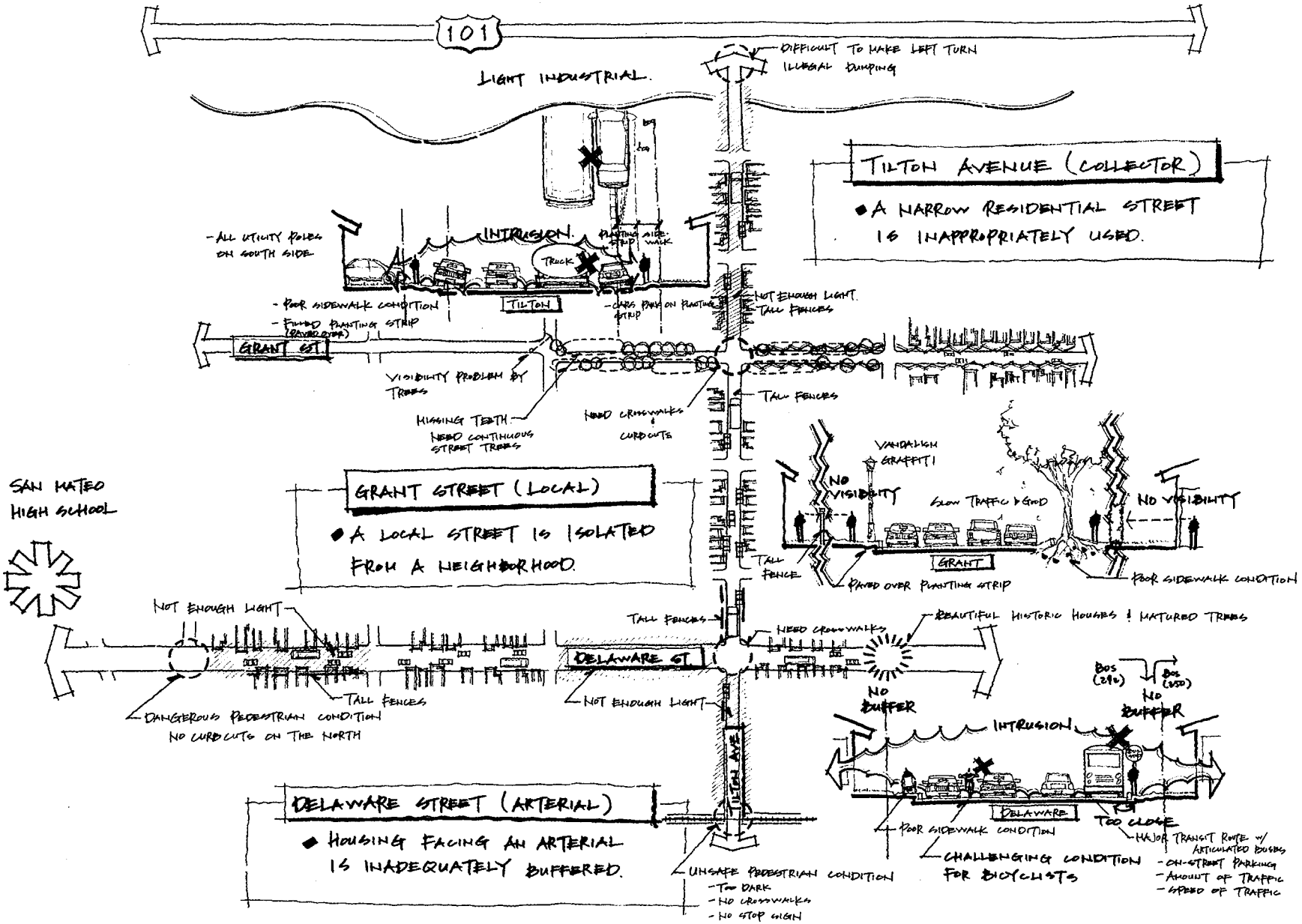
The survey team also noted that crosswalks might be helpful at the intersection of Delaware and Tilton. While this is already a four way stop, it is also a high traffic intersection, and the additional reminder of the presence of pedestrians could improve safety.

The restored historic houses and the mature trees at the intersection of Delaware and Cypress contribute to the historic character and attractiveness of the neighborhood.

3.14B DELAWARE CONSULTANT OBSERVATIONS

- Sidewalks are in poor condition, providing tripping hazards and potential obstacles for the disabled.
- Major transit route for Bus 292 and 250.
- Bus stop waiting areas are too close to the bus area.
- Bicycles must travel between parked cars and moving traffic on narrow roadway. An alternative bicycle route such as Claremont could provide the same north/south access on a quieter street. Safe bicycle connections to schools would be needed.
- Heavily traveled arterial street does not offer sufficient visual and noise buffer between the street and single family residents.
- Traffic travels relatively quickly, increasing difficulty of crossing for pedestrians and bikes.

Figure 4. Issues & Opportunities Analysis Map



3.15A COMMUNITY SURVEY OBSERVATIONS: TILTON AVENUE (COLLECTOR)

While the survey team noted that there were frequently more than four unoccupied parking spaces per block (both sides) along Tilton Avenue, the team also observed cars that were parked in planting strips/curbs, and evidence of past parking in planting strips/curbs. This may indicate that either parking is scarce in the evenings and on weekends, and/or that the width of Tilton, combined with the speed of automobiles on the street makes parking on the street unsafe. (That is, the vehicles need to jump the curb to avoid getting hit.)

Lighting along Tilton was described as questionable, given the large trees in some areas and the scarcity of street lighting fixtures in other areas.

Litter was observed on the streets along Tilton Avenue. In one location, the survey team noted what appeared to be evidence of illegal dumping into storm drains.

In addition, the transition from residential to light industrial uses along Tilton towards Amphlett Boulevard was seen as creating a very pedestrian unfriendly area.

3.15B TILTON AVENUE CONSULTANT OBSERVATIONS

- Tilton is a key link from the Downtown and transit center under the tracks and into the North Central neighborhood for pedestrians and vehicles, including small trucks.
- Tilton has a low underpass beneath the railroad tracks which is too low for some trucks. Trucks which exceed 8 feet in height cannot use Tilton to travel between Downtown and North Central. According to City Staff, although this bridge is scheduled for upgrade it is not feasible to increase the clearance.
- A narrow residential street, Tilton is inappropriately used by heavy truck traffic moving from the downtown area and Delaware Street to Amphlett Boulevard.
- Cars park on planting strip and on top of the curb to avoid being hit by passing trucks and heavy traffic.
- Street trees are missing, and the planting strip has been paved over in many areas, making parking over curb easier and detracting from the pedestrian character of the street.
- There are no crosswalks or stop signs and the under-crossing is dark and threatening to pedestrians.
- Streetlights are missing in the section between the railroad and Delaware and between Grant and Amphlett.
- Tall fences along the street indicate that residents are trying to screen out unpleasant traffic.
- It is difficult to make a left turn from Tilton to Amphlett.
- Note: A current grant for improvement of Railroad Avenue from the Transit Center to Tilton Avenue will extend the pedestrian and bike route to Tilton Avenue allowing for the potential future connection along Tilton Avenue into the North Central neighborhood.

3.16A COMMUNITY SURVEY OBSERVATIONS: GRANT STREET (LOCAL STREET)

Many driveway approaches along Grant Street are in need of repair, and where street trees remain, the roots of the trees appear to have caused cracking in the sidewalks. Most planter strips along Grant Street, however, have been paved or left as unplanted dirt patches. On the corner of Grant Street and Monte Diablo, the survey team observed that the trees pose a visibility problem to south bound automobiles on Grant Street turning east on Monte Diablo.

The survey team felt that, in general, crosswalks were not necessary for most of the intersections along Grant Street, with the exception of the intersection of Grant Street and Tilton Avenue. Curb cuts should also be provided at the corners of this relatively major intersection.

The survey team noted evidence of criminal activity including broken glass and frequent graffiti, particularly on street lights and signs, fences, and in some instances, trees.

3.16B GRANT STREET CONSULTANT OBSERVATIONS

- Grant Street is a typical narrow residential street accommodating mostly local traffic.
- A local street is isolated from a neighborhood
- There are dangerous pedestrian conditions where curb cuts are missing.
- Tall fences block views of street from houses and communicate lack of community oversight for public street and sidewalk.
- There is graffiti and other evidence of vandalism.
- Some tall trees provide a pleasant tree canopy, but the pattern is interrupted.
- Decorative street lights do not represent the historic character of the neighborhood.
- Planting strips are paved over, making street area barren of trees and greenery.

Typical local street with monolithic curb and sidewalk adjacent to street, with street trees placed within public right-of-way adjacent to front yards

Mature trees planted next to the curb in the planting strip create a dramatic effect on many local streets within North Central

4. GENERAL STREET SYSTEM GUIDELINES

The following general street system guidelines highlight changes to the neighborhood street system which could improve overall safety, convenience, and attractiveness or "Livable Streets." Implementation of the guidelines may require adjustments to existing City design standards, plans, and documents and collaboration with other local and regional agencies.

4.1 STREET SYSTEM LEGIBILITY

The ability of pedestrians to "read" the street system and to keep their sense of orientation as they move within the area is an important prerequisite for creating livable streets and neighborhoods.

Guidelines:

4.1.1 Use Streetscape Improvements to Distinguish Major Streets

By distinguishing major arterial and collector streets with unique and memorable streetscapes, people can more easily orient themselves and find their way to major destinations. Clear candidates for prioritization for distinctive streetscape treatment in the North Central neighborhood include the major arterials and the collector streets. The Conceptual Streetscape Designs in the next chapter show distinctive design treatments for these streets.

4.1.2 Develop Pedestrian Scaled Signage

By developing and refining a system of pedestrian scaled signage for parks, schools, transit stops and stations and other community facilities, pedestrian travel can be encouraged. This signage can be well integrated with other street features, and can function for cyclists, transit users and motorists as well.

4.2 VEHICLE TRAVEL LANES

Wide vehicle travel lanes can encourage speeding and make crossing streets more difficult and dangerous for pedestrians. Restricting vehicle lane width can slow traffic within neighborhoods and allow adequate space for pedestrians and other modes of travel, balancing traffic needs with those of other travelers.

Guideline:

4.2.1 Provide Minimum Travel Lane Width

Provide minimum width travel lanes within North Central to accommodate anticipated traffic volumes, and provide adequate space for pedestrians, parallel parking, and other modes of transportation within restricted right-of-ways. These widths are generally 11 foot minimum, with 12 foot preferred if all other design elements for other modes can also be accommodated.

4.3 BICYCLE LANES

The North Central area offers flat terrain, nearby destinations, and convenient alternatives to heavily traveled streets which make bicycle travel practical. In addition, for those without access to cars or convenient parking, bike travel provides an ideal option for commuting to school or work.

Guidelines:

4.3.1 Encourage Bike Travel on Quieter Streets Parallel To Major Arterials

On arterial streets such as Delaware, which has limited width and heavy traffic including buses, encourage bicycle usage on routes parallel to arterial roadways which can provide a

safer connection to similar local destinations. In North Central, either Claremont or El Dorado could fulfill this role. In Palo Alto, special intersection median designs allow through bike traffic on Bryant Street, a "bicycle boulevard", while forcing cars to turn on to major streets, providing a quieter, safer street for cycling. Established bikeways should be retained and improved consistent with the guidelines 4.3.2-4 noted below.

4.3.2 Mark Bike Lanes at Intersections

Extend bicycle lanes up to intersection stop bars or crosswalks. Where the right-of-way is constrained, use appropriate markings and signs to end lanes before the intersection.

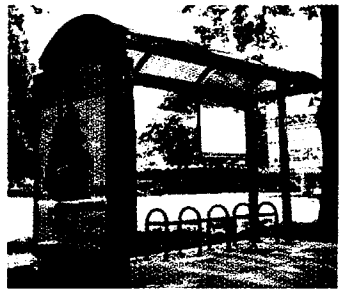
4.3.3 Provide Maps of Recommended Bicycle Routes

Distribute maps of recommended bicycle routes at major transit stations and parks through schools and other programs.

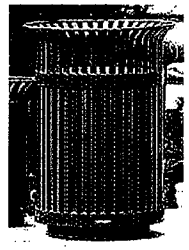
4.3.4 Reduce Bicycle Hazards

Reduce hazards for bicyclists, including replacement of drainage inlet grates with new tire proof grates.

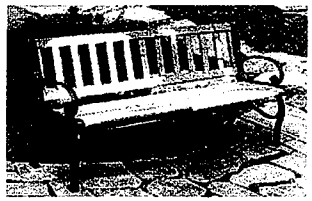
Figure 5. Recommended Furnishings



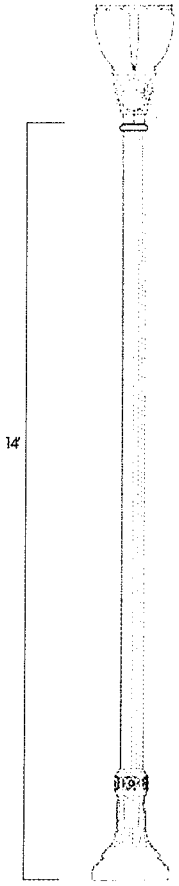
Daytech
Contemporary
Shelters
ADC04x12



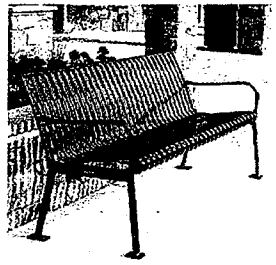
Victor
Stanley
Ironsites
S-42



Victor Stanley
CL-38



Holophane
Washington Series
Post Top fixture with
finial, ribs, bands,
and medallions
mounted on a 14'
fluted North
Yorkshire cast
aluminum pole



Victor Stanley
RB-28

4.4 PEDESTRIANS

At some point in every trip, the traveler becomes a pedestrian. By making the pedestrian experience as rich, attractive, safe and convenient as possible, many auto trips can be avoided and the livability of a community can be enhanced.

Guidelines:

4.4.1 Work Collaboratively to Improve Safety for School Children

The North Central neighborhood contains San Mateo High School and several Elementary schools. City transportation staff and police should collaborate with school staff and parents to identify safe routes for students to walk and bicycle to school.

4.4.2 Improve Markings for Pedestrian Crossings

Use a combination of crosswalk striping, pedestrian crossing signs, and median signs to make vehicles more aware of pedestrian crossings and reduce potential accidents. Generally "ladder-style" crosswalk markings should be used for higher visibility. Crossing signals for pedestrians should be provided at major intersections.

4.4.3 Strengthen Pedestrian Realm; Increase Buffers Between Sidewalk and Moving Traffic

Implement street improvements that strengthen the sense of a pedestrian realm by providing adequate buffers between sidewalk and curb, parked cars, and moving traffic. The pedestrian realm extends from the vehicle travelway to the edge of the sidewalk right-of-way. It includes the sidewalk, on-street parking, street trees and buffer landscaping, streetscape improvements and public transit facilities.

4.5 STREET TREES

Street trees provide separation of the pedestrian space from moving traffic, provide shade on hot sunny days, and create a unified character to the street and neighborhood. They reduce heat gain in parked cars and houses and generally improve the attractiveness and livability of the neighborhood.

Guidelines:

4.5.1 Street Tree Spacing

Provide continuous and uniform, closely spaced tree plantings to create a continuous canopy along and across the street. Street tree spacing of about 25 feet can create such a canopy.

4.5.2 Trees Wells in On-Street Parking Area

When sidewalks are narrow, plant street trees between on street parking spaces in tree wells adjacent to the curb in the street. To minimize parking impacts, tree spacing should conform to Conceptual Streetscape Designs however should also allow for some flexibility to limit overall parking loss. (See proposed Conceptual Streetscape Designs).

4.5.3 Street Tree Species

Street trees should be selected in accordance with the City's approved Street Tree Master Plan. Where specific design effects are intended with the Conceptual Streetscape Designs, additional suggestions may be provided.

Generally, tree species should be selected whose canopy does not encroach into pedestrian headroom or into tall curbside vehicles such as buses and trucks.

4.5.4 Trees in Planter Strip near Curb

Wherever possible, street trees should be placed between the sidewalk and the roadway within tree wells or a planter strip, rather than adjacent to the front yard with a monolithic curb. This provides more shade for the sidewalk and street, greater tree canopy, and reduces the apparent width of the street.

4.6 ON-STREET PARKING

On-street parking provides convenient visitor parking for neighborhood shopping areas and supplements off-street parking within densely developed areas like North Central. It also provides an additional buffer between pedestrians and moving traffic.

Guidelines:

4.6.1 Provide On-Street Parallel Parking

Incorporate on-street parallel parking wherever possible to help address parking needs and provide a buffer for pedestrians from moving traffic. Parallel parking is recommended over other solutions such as diagonal parking which can increase hazards for bicyclists and requires a greater street width. On-street parking lane width for parallel parking with limited street width is generally seven feet.

4.6.2 Curb Bulb Outs at Crosswalks

The safety of pedestrians crossing streets with on-street parking can be increased by extending curbs with "bulb-outs" to decrease crosswalk length and make pedestrians more visible to motorists. Additionally, with all new street corner improvements, wheelchair accessible ramps should be incorporated where appropriate.

4.7 Public Transit

Transit can improve livability by reducing auto traffic, extending travel, work, shopping, and other opportunities for those without access to cars, reducing pollution and supporting pedestrian vitality.

Design Guidelines:

4.7.1 Bus Stop Signage and Waiting Areas

Improve signage and bus waiting areas, particularly on major routes such as Delaware, by planning cooperatively with Sam Trans. Incorporate facilities such as benches, bus shelters, maps, route and schedule information at heavily used stops and at the Transit Center to make transit use more comfortable, convenient and easy to understand.

Extending sidewalks into the on street parking lane can also improve pedestrian access to transit, providing space for bus shelters, signage and street trees for shade.

4.7.2 Coordination with Sam Trans on Bus Stop Design Criteria

Coordinate with SamTrans to assure any plans for tree planting in parking lane along Delaware or other major transit routes consider anticipated bus stop location, length of buses, and the ease and safety of boarding and waiting for passengers.

4.7.3 Clearances in Waiting Areas

Preferred dimension from bus shelters to curb is 4.5 feet or a minimum of 3 feet for shelters facing street. Distance between curb and street furniture at a bus stop is 3 foot minimum and 6 feet preferred clearance.

5. CONCEPTUAL STREETSCAPE DESIGNS

The Conceptual Streetscape Designs in this chapter were developed to guide future streetscape improvements within the North Central area. They were developed to respond to the unique right-of-way, traffic, and adjacent development patterns found on three specific streets within the North Central area, Delaware, an arterial street, Tilton, a collector street, and Grant, a local street. There are many other streets within the North Central area, which may vary in specific street characteristics. As such, it is anticipated that implementation of the Livable Streets Plan may require refinements to the Conceptual Streetscape Designs on a street-by-street basis.

Prior to construction of specific street improvements, additional design work and public input will be necessary. This work will include preparation of a detailed street layout for all blocks for which street improvements are proposed showing existing and proposed street tree, streetlight, driveway, and curb cut locations. Neighborhood participation will be required to ensure that the needs of residents and business and property owners along that street are fully considered in the detailed street improvement design and the construction process. Further estimates of parking displacement and a general cost estimate can be obtained at this stage, although cost estimates will need refinement as additional design proceeds and actual bids are received.

Additional design development is needed to refine details and specifications for paving, street trees, landscaping and other street elements. Finally, construction documents need to be prepared to guide the actual construction of the street improvements and provide the basis for collecting construction bids.

5.1 DELAWARE: ARTERIAL STREETSCAPE DESIGN

5.1.1 Issues and Objectives

The intent of the proposed design is to reinforce the "Main Street" character of Delaware, and the arterial spine of the neighborhood and primary connector to other neighborhoods and the downtown. In addition, a key objective is to increase the perceived buffer from heavy street traffic for adjacent houses using street trees and planters. Providing convenient bus stop waiting areas along this major transit route was another key objective.

5.1.2 Proposed Design Concept Recommendations

The proposed design (Alternative B in the workshops) is intended to increase the sense of a buffer between existing buildings and the street through closely spaced street trees and dense planting within the planter strips. The proposed design could allow existing large street trees within the planter strip to be retained.

Sidewalk Width

A minimum 5 foot sidewalk width should be maintained along Delaware without obstacles such as street lights or signage. Where foot traffic is heavy, such as near bus stops, this width should be increased to approximately ten feet by extending the sidewalk paving to the curb.

Parkway Area

Where paving is not appropriate, drought tolerant landscaping which is resistant to foot traffic should be installed in planting strips.

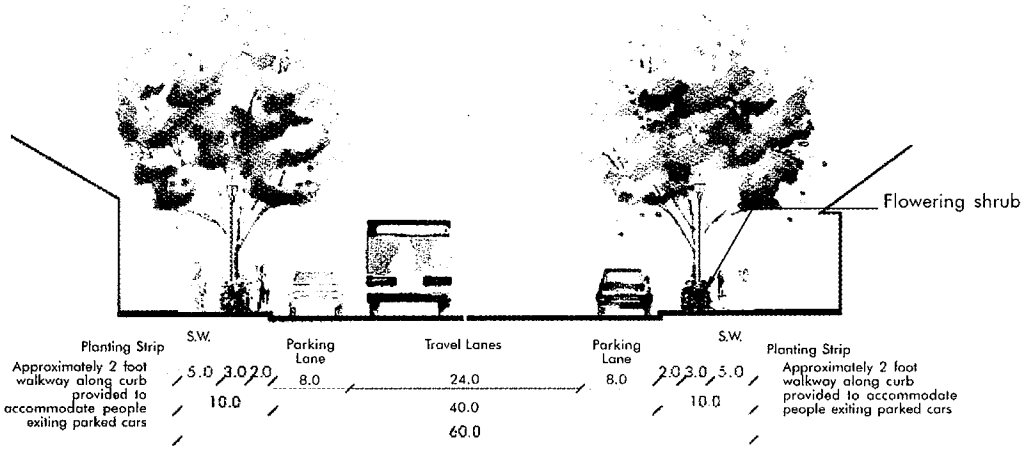
Alternatives with Street Tree Planting in Parking Lane

Alternative A was the concept supported by the majority of the participants at the public workshop for Delaware Street. This alternative incorporates street tree planting at about 50 feet on center within the parking zone to provide a canopy of trees over the street and help to buffer the pedestrian zone from moving traffic. However, the Public Works department expressed a number of concerns with this alternative for Delaware Street, and instead recommended Alternative B.

Primary City staff concerns with Alternative A included the impact of placing large trees in the parking zone on sight visibility of a busy arterial, increasing the potential for vehicle conflicts. Staff noted that many properties on Delaware have driveways onto the roadway, and that the placement of the trees is problematic for parked cars merging into the traffic flow from both on-street parking and driveways.

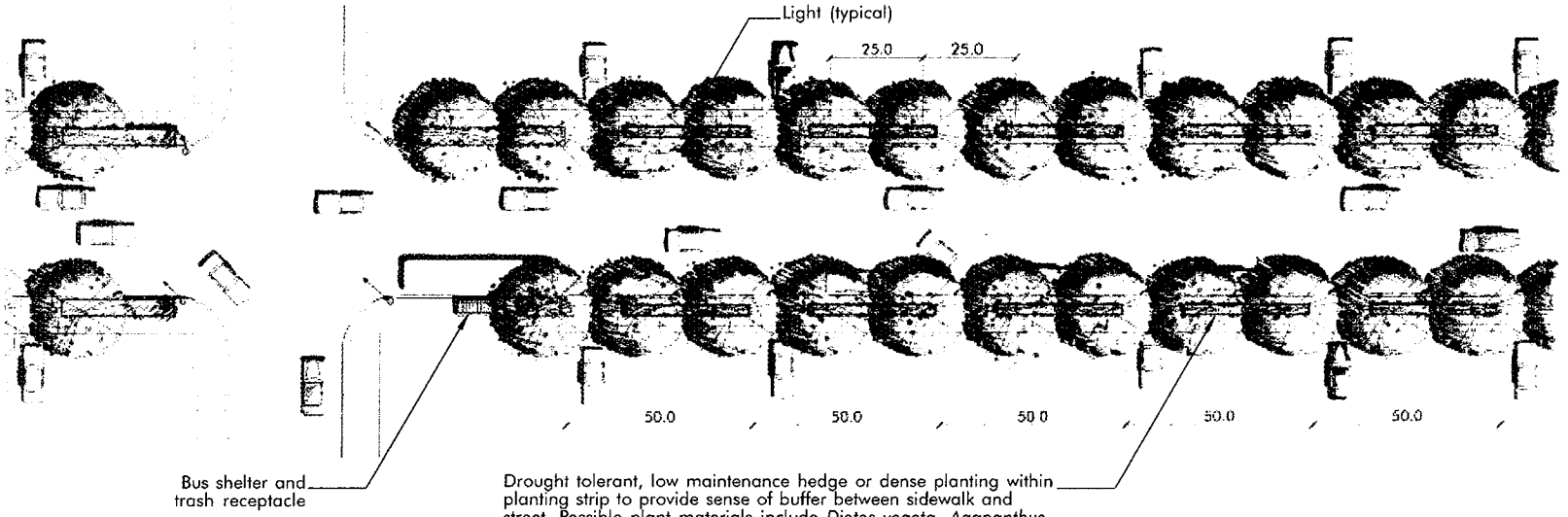
In addition, staff noted the narrow right of way on Delaware Street and the potential for vehicle collisions with the trees adjacent to the travel lane. The staff noted that the proposed up-lights would improve safety after dark, but that these lights are not fail-safe and sight visibility at dawn and dusk remain problematic.

Figure 6. Recommended Concept For Delaware Street and Arterial Streets



Delaware Street
(Arterial)

FREEDMAN TUNG & BOTTOMLEY



Plan
City of San Mateo

5.1 ARTERIAL STREET DESIGN FOR DELAWARE (CONTINUED)

Street Lights

Standard City Street Lights
To reduce costs and facilitate repair and maintenance, City standard streetlights could be used on all North Central streets. By using a unique paint color for posts, North Central can be differentiated from other neighborhoods and the downtown.

The current City standard streetlight is a post top type, 14 feet high, acrylic prismatic luminaire with a color corrected metal halide light at 3200K. To minimize light pollution and light trespass issues, all new streetlights should conform to the City's lighting policies.

Existing cobra head lighting could be maintained at intersections for additional illumination, with lower City standard lights at other locations.

Street Trees

Street Tree Spacing
Street tree spacing within the planting strip is recommended to be approximately 25 feet on center so as to accommodate approximately two trees in front of a typical 50 foot lot frontage. Flexibility is required to accommodate existing driveways and allow for preservation of existing street trees where desired.

Street Trees Species and Care
Suggested street tree species for Delaware include: *Robinia ambigua* (Castro Street, Mountain View) or *Platanus* species (University Avenue, Palo Alto). Other suitable trees include the *Gingko biloba* identified in the City's approved Street Tree Master Plan for Delaware. To reduce or avoid heaving of pavement from tree roots, use root guards and deep irrigation.

Travel Lanes

Minimum Street Dimensions
Minimum curb-to-curb width should be 34 feet.

Bus Stops

Bus Stops
Bus stops occur generally near street corners along Delaware. Where stops are provided, street tree planting within the planting strip could be less dense to minimize visibility problems and hedge planting can be eliminated to accommodate increased pedestrian access to curb for loading and unloading.

Bus Shelters and Benches
Near major destinations such as San Mateo High School, bus shelters and benches should be provided. These elements should be provided with at least 3 feet clearance to the curb. Recommended bench design is shown in General Street Guidelines.

5.2 COLLECTOR STREETSCAPE DESIGN FOR TILTON

5.2.1 Issues and Objectives

Tilton is too narrow to function effectively as a collector street. It carries heavy truck and through traffic on a narrow roadway within a limited 50 foot public right-of-way. Parking shortages throughout the neighborhood require parking on both sides of the street. Recognizing that the street is too narrow for both parked and moving cars, many cars park straddling the curb to free the travel lane, damaging street trees and planter strips. Because of the heavy traffic, tall fences block views of the street, making it less safe. The many competing objectives for a limited street width include: improve livability of street, buffer pedestrians, preserve parking, and continue to allow two-way and truck traffic.

5.2.2 Proposed Design Concept Recommendations

The proposed street design concept (Alternative A in the workshop) creates an "overlap zone" where parking is permitted within a special paving zone. Street trees at about 32-35 feet on center create parking spaces along this strip. The dense tree planting would provide a canopy of trees over the street and help to buffer the sidewalk pedestrian zone from moving traffic.

The original concept proposed grasscrete for the "overlap zone", but due to maintenance and irrigation concerns this has been changed to stamped and/or colored pavement.

5.2.3 Streetscape Design Guidelines

Sidewalk Width

Sidewalk Width

A 6 foot sidewalk width should be provided adjacent to the edge of the public right-of-way. Streetlights and signage should not encroach more than 1 foot into this zone, leaving five feet clear to the face of curb. Provide bulb-outs at corners to facilitate pedestrian crossing.

Street Lights

Standard City Streetlights

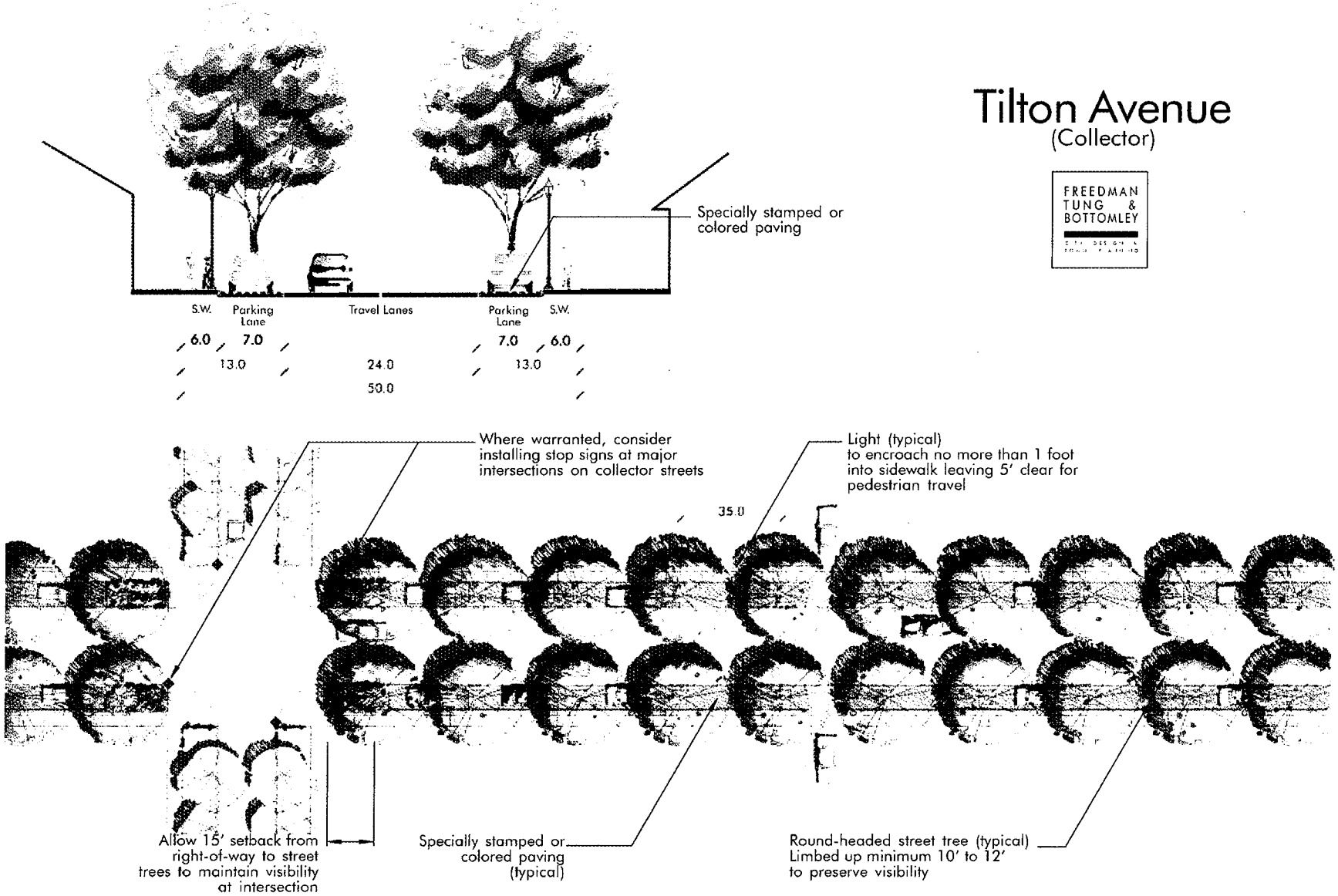
Streetlights should be City standard with a post height of 14'. To minimize light pollution and light trespass issues, all new streetlights should conform to the City's lighting policies.

Street Trees

Street Tree Spacing

Street tree spacing is recommended to be 32 to 35 feet so as to accommodate a typical parallel parking space 22 feet long plus two feet on either side between tree wells approximately four feet wide by seven feet long.

Figure 7. Recommended Concept For Tilton Avenue and Narrow Collector Streets



North Central Livable Streets Plan
City of San Mateo

5.2 CONCEPT FOR TILTON AND NARROW COLLECTOR STREETS (CONTINUED)

Tree Well/Planter Area Design for Street Sweeping & Drainage

Tree well/planter area design should be designed to be as adapted as possible to street sweeping equipment capabilities and to provide drainage along the existing gutter. Generally, the tree should be surrounded by a low curb to protect it from damage by parking cars.

Street Trees Species and Care

Suggested street tree species for Tilton include: *Robinia ambigua* (Castro Street, Mountain View) or *Platanus* species (University Avenue, Palo Alto). The City Street Master Plan recommends *Sapium sebiferum* (Chinese Tallow Tree) on Tilton. To reduce or avoid heaving of pavement from tree roots, use root guards and deep irrigation. Use high branching species and locate and trim to reduce conflicts between low branches and passing trucks.

Street Tree Protection

There are less frequent driveway entries onto Tilton since most blocks have alleys and houses typically face onto perpendicular streets. However curbs, bollards, and uplights on the car side may help reduce tree damage from cars.

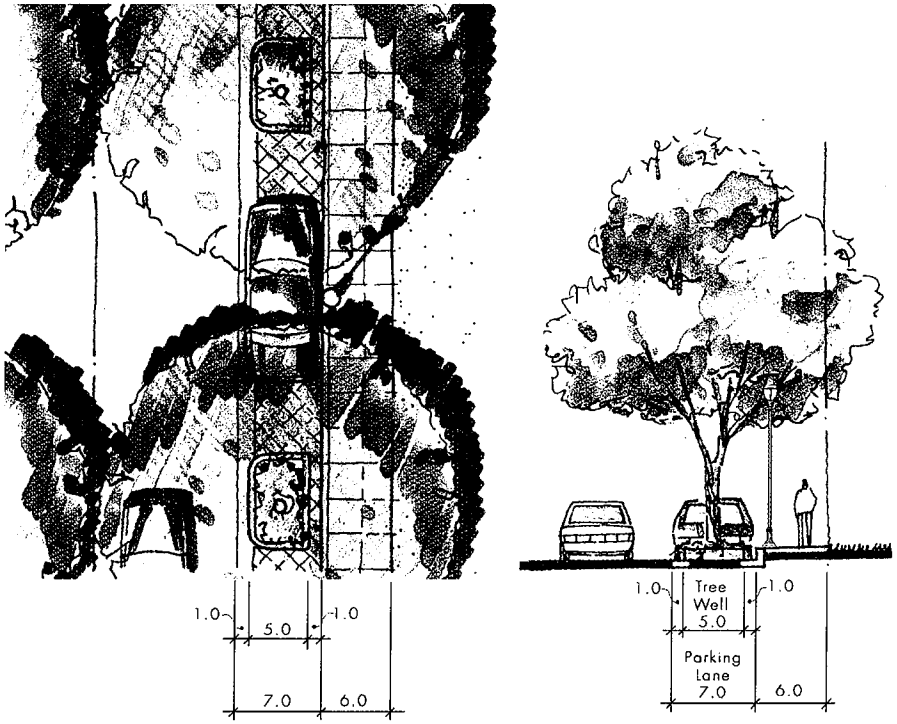
Travel Lanes

Minimum Street Dimensions

Minimum curb to curb width should be 38 feet, with a minimum width of the travel lane from tree planter curb to opposite tree planter curb of 26 feet. Botts dots could be used to encourage cars to stay within their lanes.

Street Paving and Resurfacing

To reduce the complexity of street improvements, regular resurfacing efforts can be limited to the 24 foot wide travelway area. The decorative concrete or interlocking pavers "Overlap Zone" could remain, since it will receive much less weight and wear and tear. The design could include a 12" concrete band at the edge of the decorative "Overlap Zone" to make the transition.



Detail of tree well with concrete curb

5.3 LOCAL STREETSCAPE DESIGN FOR GRANT STREET WITH EXISTING PLANTER STRIP

Add Trees in Parking Zone and Planter Strip
Grant Street from 1st to Monte Diablo (Existing Planter Strip)

5.3.1 Issues and Objectives
Make pedestrian crossing safer, slow traffic on neighborhood streets, provide attractive street tree canopy.

5.3.2 General Design Concept
The existing trees within the planting strip provide an attractive canopy and buffer pedestrians from street. If neighbors want to decrease apparent street width and slow traffic further, additional trees can be planted in bulb-outs in the parking zone.

5.3.3 Streetscape Design Guidelines

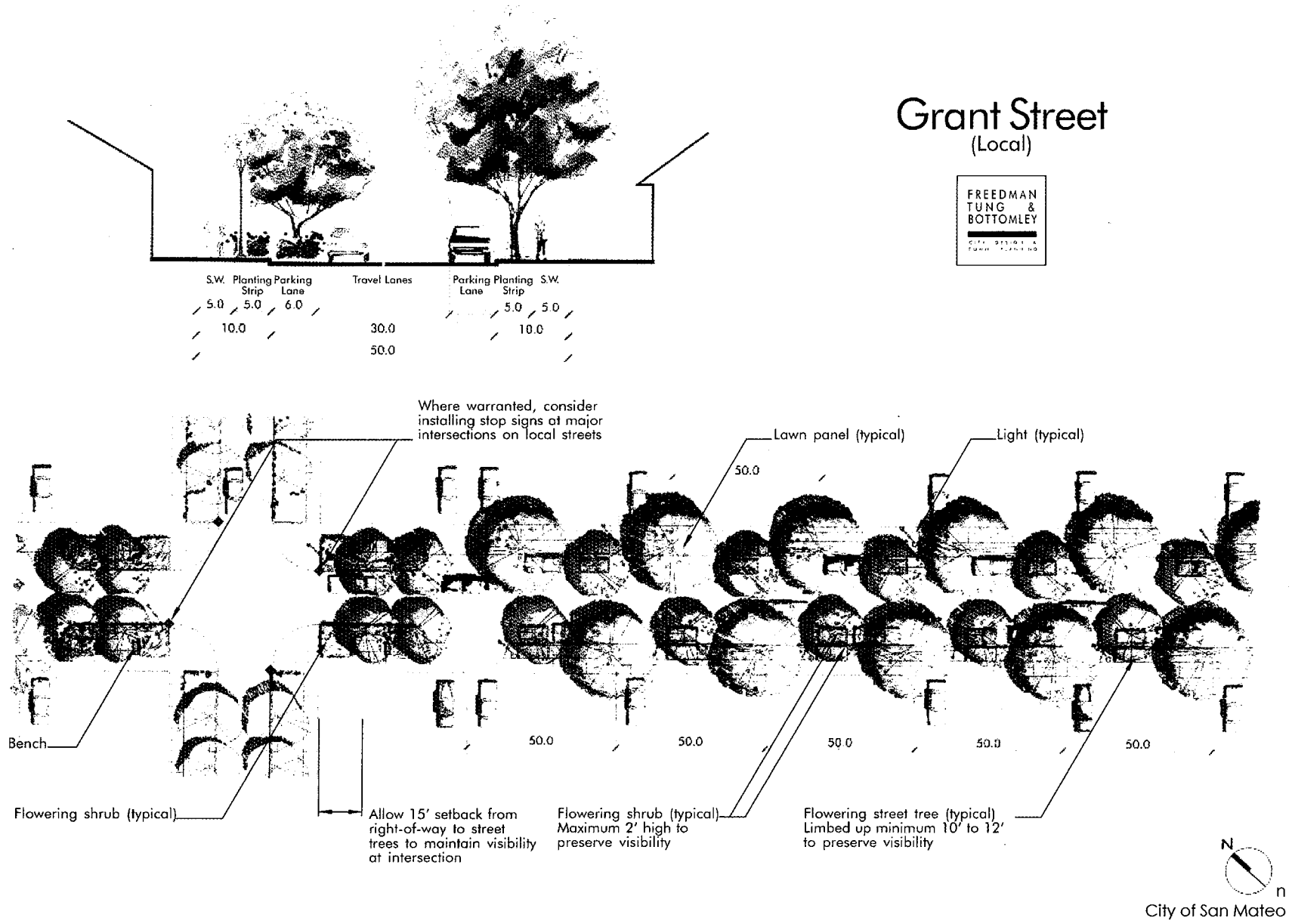
Street Trees
Street trees should be densely planted at approximately 25 feet on center within existing planter strip. If additional trees are planted in the parking zone, trees can be offset between the planter strip and parking zone. The parking zone trees should be planted approximately 50 feet on center, leaving at least one on-street parking space in front of each house.

For visibility near intersections, street trees should be set back 15 feet from the right-of-way within the parking strip.

Street Lighting
Streetlights should be City standard with a post height of 14'. To minimize light pollution and light trespass issues, all new streetlights should conform to the City's lighting policies.

Planter Strip
As is common in most areas of the City, homeowners would be responsible for maintenance of the landscape strip, although the City would prune and maintain street trees.

Figure 8. Recommended Concept For Local Street with Existing Planter Strip



5.4 LOCAL STREETSCAPE DESIGN: TREES IN PARKING ZONE WITH MONOLITHIC CURB

Grant Street from Indian to Monte Diablo (monolithic curb)

5.4.1 Issues and Objectives

Sidewalks which are directly adjacent to the curb, without any planter strip, make the street appear wider, encouraging speeding by motorists. This concept aims to make crossing street safer and easier for pedestrians, add buffer between pedestrian and street in blocks with sidewalk adjacent to curb, define the street with closer set tree plantings and slow through traffic by decreasing apparent width of street

5.4.2 Local Street Design Concept

Add street trees within parking zone increase shade and buffer houses and pedestrians from street. Effective width of traffic lane remains unchanged. Existing street trees appear to be in front yard of houses, though on public right-of-way. Together with the new trees in the parking zone, they create a canopy of trees for the pedestrian. Bulb outs improve pedestrian crossing safety

5.4.3 Streetscape Design Guidelines

Street Trees

Street trees planted adjacent to front yards are usually in good condition due to increased irrigation and care from homeowners. This concept calls for additional trees to be planted in parking zone. These trees can be offset between the planter strip and parking zone. The parking zone trees would be planted approximately 50 feet on center, leaving at least one on street parking space in front of each house.

Near intersections there should be a 15 foot setback from right-of-way to street trees within the parking strip for visibility at intersections.

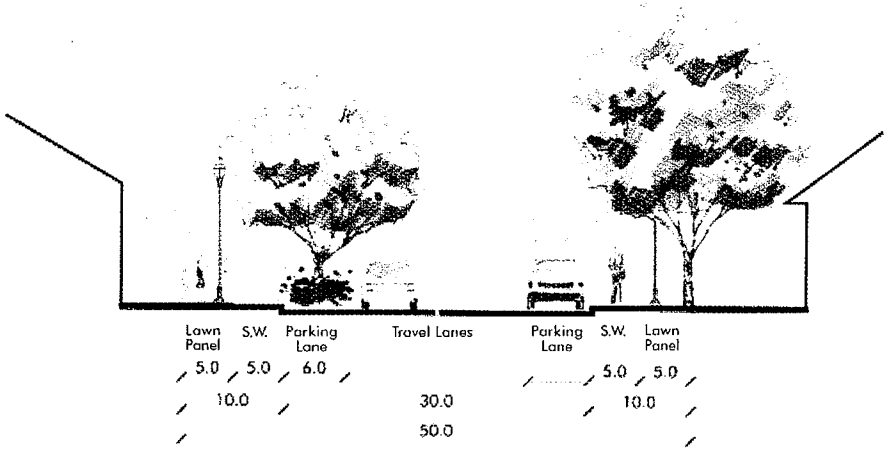
Street Lighting

Streetlights should be City standard with a post height of 14'.

Planter Strip

As is common in most areas of the City, homeowners would be responsible for maintenance of the landscape strip, although the City would prune and maintain street trees.

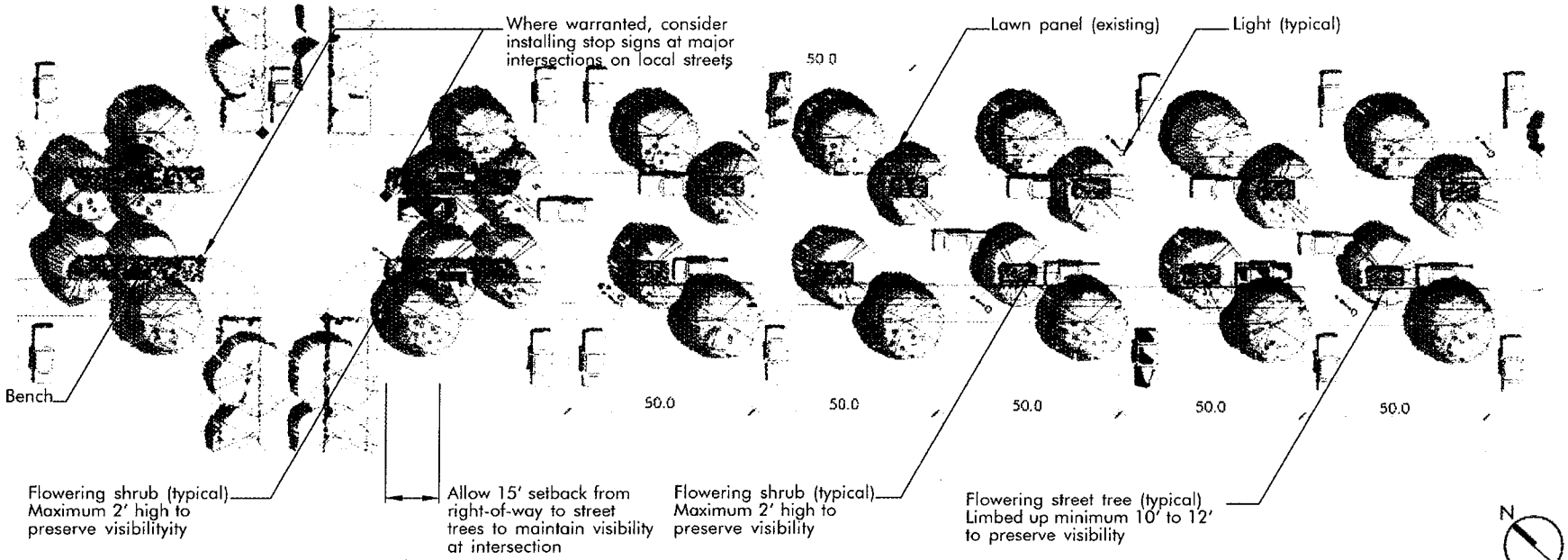
Figure 9. Recommended Concept for Local Street with Existing Monolithic Curb



Grant Street

(between Indian and Monte Diablo Streets)

FREEDMAN TUNG & BOTTOMLEY



City of San Mateo

6. NEXT STEPS

The following list describes possible implementation actions which could be taken by the City to implement the recommendations in this plan.

1. COORDINATION WITH SAM TRANS ON TRANSIT IMPROVEMENTS
   Coordinate with SamTrans in identifying needs for better bus stop and waiting area facilities and signage and implementing improvements.

2. STREET IMPROVEMENTS

   2.1 Identify Location of Priority Street Improvement Project (consider either Delaware as major transit route or Tilton, as key pedestrian link to downtown)

   2.2 Explore and identify funding sources for Design and Construction of Street Improvements

   2.3 Develop more detailed street concept in consultation with adjoining residents and property owners through public workshop process

   2.4 Develop complete Street Layout, including location of driveway cuts, adjacent private property, curb location, and proposed street tree locations. Prepare Cost Estimates for Streetscape Improvements

   2.5 Complete formal City review and hold Public Hearings as necessary on Proposed Streetscape Project

   2.6 Construct Street Improvements

7. ACKNOWLEDGEMENTS

Livable Streets Advisory Committee
Sybil Bolivar, HANCSM Representative
Yvonne Folsom, HIP Housing
Wende Protman and Ron Babiera, Neighborhood Improvement & Housing, Community Improvement Coordinator

Community Survey Volunteers
Diane Whitaker
Sybil Bolivar
Alan Kornfield
Yvonne Folsom

City Staff Surveyors:
Lori Matsukuma, Planning
Janice Torcia, Code Enforcement Officer
Wende Protzman, Neighborhood Improvement and Housing
Martin Quan, Assistant Engineer, Public Works
Christopher Rogers, Planning Intern

City Staff
Evelyn Baker, Former Project Manager
Lori Matsukuma, Project Manager, Planning Division
Gary Heap, Senior Engineer
Ron Babiera, Community Improvement Coordinator

Consultants
Prime Consultant:
Alison Kendall, Principal, Kendall Planning & Design
Subconsultants:
Michael Freedman, Freedman Tung & Bottomley
Hiro Sasaki, Freedman Tung & Bottomley
Hui Wang, Freedman Tung & Bottomley

Other Agencies
Jim Dehart, Samtrans Service Planning, SAMTRANS
Carter Mau, Samtrans Service Planning, SAMTRANS

Project Sponsors and Funding Sources

The North Central Livable Streets plan is a joint effort, sponsored by the City of San Mateo's North Central Goal Directed Action Team (NCDGAT), in partnership with the Home Association of North Central San Mateo (HANCSM) and the Human Investment Project (HIP) Housing, "North Central Neighborhood Livable Streets Plan."

The **NCGDAT** is a City inter-departmental team formed to promote a high quality of life for North Central neighborhood residents. The team is made up of representatives from Neighborhood Improvement and Housing, Planning, Public Works, Building, Code Enforcement, Parks and Recreation, Fire, Police, Library Services, and HANCSM.

HANCSM represents residents – including renters as well as property owners – and businesses within the North Central neighborhood. Their mission is to protect and enhance the beauty of the community, to support appropriate zoning that encourages a coherent neighborhood identity, to develop facilities for recreation and culture, and to generally act for the best interests of residents of North Central San Mateo.

HIP Housing is a 28 year old non-profit agency that provides permanent housing solutions to over 1,000 persons per year – senior citizens on fixed incomes, single parents, the disabled, the homeless and working persons. Housing solutions are provided through housing programs and property development and redevelopment. HIP Housing recognizes that enhancing resident access to alternate modes of transportation will help to make the existing housing stock in the North Central neighborhood more accessible to people with special needs, either from income or circumstance.

The North Central Livable Streets Plan is funded by a $25,000 grant from the **Metropolitan Transportation Commission (MTC) Transportation for Livable Communities (TLC)** program, $25,000 from the **NCGDAT** budget, and approximately $18,366 in **Community Development Block Grant** funds.

8. APPENDICES

8.1 WORKSHOP 1 NOTES

8.2 WORKSHOP 2 & STAFF REVIEW NOTES

8.3 ALTERNATIVES PRESENTED AT WORKSHOP 2

8.1 WORKSHOP 1 NOTES

CIRCULATION (VEHICULAR, BICYCLE, PEDESTRIAN)

- **Delaware/First Avenue Intersection.** Extended delays at this intersection. City Engineer, Darla Reams, clarified that the signal for this intersection will be operational very soon.

- **Traffic at Tilton.** Delays on north bound traffic on B St. turning east onto Tilton due to trucks/cars stopped at railroad overpass. East-West bound traffic should be directed to Monte Diablo, Poplar or 3rd Avenue instead of Tilton.

- **Vehicular Route to Transit Center.** Need to shift trucks and cars to Delaware, right at First, right at B Street.

- **Future Traffic.** Concern regarding how new development will impact traffic. Interest in *controlling traffic through the neighborhood, particularly on local streets.* Specific projects include downtown cinema (12 screen theater, Main between. First and Third), Willow Partners (44-unit residential, Santa Inez at ECR), Classic Communities (25-unit residential, Humboldt at Second), Prometheus (177-unit residential, Third/Fourth between. Eldorado/Grant), 301 Airport (4 building office park, Burlingame).

- **CalTrain Ticket Vending Machines.** Vending machines at transit center are inconveniently located at First Avenue corner. This is of particular concern for senior citizens.

- **Alternative Bike Route.** Delaware is part of regional bicycle route extending from San Francisco to Palo Alto. However, perhaps use Fremont from Indian to Ninth Avenue given lack of available space for bicycle lane on Delaware.

- **Pedestrian Safety.** Improve pedestrian routes to and from Transit Center to be more safe and attractive. In particular, CalTrain overpasses need improvement to increase pedestrian safety.

- **On-Street Parking Shortage.** Overcrowding in the neighborhood has resulted in limited availability of on-street parking, as well as increased traffic congestion in the neighborhood.

URBAN DESIGN

- **Street Lighting.** Low (shorter) lights historically have not worked in this area due to interference from trees and vandalism.

- **Front Fences.** Agreement that limiting fence height in the front yard increases safety as more eyes are on the street. However, recognition that there may be cultural barriers to this model. Need to create a positive street environment so that lowering fence height is desirable. Given the abundance of existing tall front fences, suggestion to explore financial incentives to installing new fences. Also, concern that picket fence model is vulnerable to graffiti.

- **Bus Shelters.** Bus stops seem unprotected. Need bus shelters.

- **Public Safety.** Need to designate safe pedestrian routes to Transit at night. Walking along railroad to the creek overpass to get to the Transit Center was identified as preferable to walking on B Street even though no sidewalks, because of relatively low levels of vehicular traffic.

- **Street Trees.** Was noted that street trees were removed in some parts of then neighborhood and then replacement trees were planted in front yards.

ARTERIAL STREETS – DELAWARE STREET

- **Buses.** Routes have been consolidated resulting in higher capacity buses on Delaware, with none on adjacent streets. Street environment along Delaware could be greatly improved by substituting the articulated buses for *smaller buses to reduce noise, vibrations, and improve traffic*. Suggestion to explore possibility of *free shuttles transversing the neighborhood to encourage transit use.* (This suggestion came up when we were talking about traffic on Tilton in particular.)

- **Street Width and Parking.** To improve traffic, parking could be removed. However, the consensus was that parking is a greater need, due to shortage of parking in the neighborhood, but also for additional buffer between traffic and residences. Also generally, *need to retain street parking throughout the neighborhood.*

- **Buffers.** In addition to parallel parking, need more buffers between pedestrian and vehicular traffic.

- **Bicycles.** Designated bike route, but dangerous due to traffic. As a consequence, some bicyclists are opting to ride on the sidewalk, endangering pedestrians. One option is to pull bikes off of Delaware onto an adjacent street.

COLLECTOR STREETS – TILTON AVENUE

- **Street Classification.** Concern that Tilton in particular is too narrow to continue to function as a collector street. However, there was recognition that they are they are the most practical connectors to Delaware. Existing conditions include cars parking on landscape strips to provide necessary street width for fast moving truck traffic. Discussion as to whether they should continue to function as collector streets, and if parallel parking on both sides should be retained. One option is to make Tilton and Monte Diablo a one-way couplet, noting that the result will be more efficient yet faster movement along each. Not necessarily desirable, particularly to those living on Tilton or Monte Diablo.

LOCAL STREETS – INDIAN AVENUE

- **Traffic Calming.** Need traffic calming devices on local streets. However, do not like the traffic circle at Fifth.

- **Stop Signs.** May need additional stop signs along local and collector streets. Discussion regarding frequency of signs on local vs. collector streets and what is appropriate for desired amount of traffic.

- **Visibility at Intersections.** Limited visibility at many intersections due to parked vehicles. Suggestion to red curb near corners.

8.2 WORKSHOP 2 NOTES

SUMMARY OF STREET CONCEPT FEATURES AND TRADEOFFS

This summary includes features of each street concept presented at the Community Workshop held February 5, 2002, as well as a summary of public comments and City staff comments on the concepts from a meeting held May 22, 2002.

ARTERIAL STREETS – (DELAWARE)

Overall Issues

- Transit: Need Bus Stop Improvements: Benches, Shelters, Signage
- Trees need to reinforce "Main Street" Character of Street
- Need to provide buffer from street for houses on busy street
- Impact of street tree spacing on parking
- Relocate Bike Route to parallel street: Claremont with school connections

General Recommendations

- Trees in parking zone 50 feet on center
- Add bus shelters and trash cans at stops
- Remove bike route to quieter cross street

General Public Comments On Arterials

- Suggest limiting truck parking at corners or in general to improve visibility
- Difficult to enforce, but parking spaces could be sized for cars not trucks
- Trees are good, they cut down noise
- Concern: Parking is limited, need parking for multifamily residential
- Is it feasible to underground utility lines (overhead wires)?
- Response: undergrounding is very costly. If money is spent on trees and streetscape, wires become less dominant and overall improvement per dollar spent is more dramatic
- No gingko trees

City Staff Comments On Alternatives

- Should use City standard street lights
- Concern regarding loss of parking
- Issues to address: maintenance of landscaping, street sweeping
- Need to allow for gutter drainage
- Need minimum 5-foot sidewalk width
- Verify that sidewalk is in right-of-way, may need easement if on private property
- Visibility at driveways
- Minimum curb to curb width = 34 feet
- Minimum planter to planter width = 24 feet
- (Public Works, Gary Heap)

ARTERIAL: ALTERNATIVE A – LARGE TREES IN PARKING LANE

Features

- Large streets 50 feet on center in parking zone
- Expand sidewalk area; provide bus waiting area

Positives (Public Preferred Alternative)

- Allows large trees in parking zone defining large pedestrian zone on major street
- Sidewalk area can be wider and bus and pedestrian areas more generous without street trees encroaching
- Want least expensive to implement and maintain
- Keep corners clear for future additional bus stops
- This is my second choice but seems the most realistic. Problem: Who maintains the trees and planter strips?
- Better visibility
- This is a perfect design
- Good lighting
- Wonderful design!!
- The trees are a great buffer

Negatives

- Street sweeping and maintenance of bulb-outs is difficult
- Some loss of parking for tree planting
- Many large existing trees; could retain and add more rather than remove them
- Parking is needed for multi-unit housing from before parking codes requirement. Taking away spaces is not a solution
- If parking space is restricted in size, the overflow will go on to neighboring streets expanding the same problem further in the neighborhood
- Like lower light standards, but fear it will increase vandalism, i.e. damage to fixture itself

ARTERIAL: ALTERNATIVE B – DENSE TREE PLANTING IN PLANTER STRIP

Features

- Frequent (one tree/25 feet) tree planting within planter strip
- Low hedge or dense flower planting to create buffer between street and sidewalk

Positives

- Dense tree planting, using existing curbs and retaining existing tall trees if desired
- Bus shelter looks good
- Alternative B increases the hedge and adds a 2.5 foot walkway for exiting cars
- Increases street trees but doesn't put them in parking lane—preserves parking

Negatives

- Tree too close to intersection. Unsafe. (Concerned with) visibility, car accidents
- Don't like it
- Sidewalks may seem even more cramped with hedge planting (could eliminate)
- Trees in Parking zone are best, hides and limits filled up parking along curb
- Too many trees. Agree
- No planter boxes

ARTERIAL: ALTERNATIVE C - TREES ALTERNATE IN PLANTER STRIP AND PARKING ZONE

Positives

- I love this design concept because it's innovative
- This is my favorite plan. I would pick this. Problem: Who will maintain?
- Like grass/brick concept
- (Like the) up-lighting! (Like) the kind of light posts you recommended

Negatives

- Increased maintenance expense similar to Alternative A
- This design is a little too crowded
- Don't like it!
- Not a neighborhood design

COLLECTOR STREET CONCEPTS – TILTON

Objectives

- Increase effective street width for role of collector street Tilton is too narrow to be a collector street
- Continue to accommodate on street parking on both sides of street
- Provide pedestrian link to downtown & transit center via street undercrossing
- Traffic is heavy and roadway narrow, so cars park straddling curb to free travel lane
- Tall fences block views of the street, making it less safe
- Many competing objectives: improve livability of street, buffer pedestrians, preserve parking, keep two way traffic, truck route

General Public Comments

- Concern with Street Cleaning
- Will this be implemented?
- Need Lower Fences
- May need painted lines and "bots dots" to mark traffic lanes
- Most of the biggest trucks travel from this area to freeway on 2nd Street
- How can this street design be made compatible with street design throughout neighborhood?
- Concern over potential conflicts with driveway cuts

Parking Comments

- Concern over conflicts with church parking
- Consider truck delivery to corner market on Tilton
- Parking demand—at night about half the spaces on Tilton are taken, more than half on Monte Diablo and Santa Inez
- Tilton parking demand is higher near multifamily residential

City Staff Comments

- No grasscrete, would recommend some other durable material such as colored/stamped concrete (Public Works, Gary Heap)

COLLECTOR STREET: ALTERNATIVE A – GRASSCRETE "FLEX ZONE"

Features

- Street trees located in parking strip
- Eliminate planter strip; replace with grasscrete parking zone
- Relocate curb to edge of 5 foot sidewalk, street lights located in sidewalk zone
- Width of traffic lanes increased to 24 feet, with 8 foot parking both sides
- Bulb-outs at corners to facilitate crossing

Positives

- Traffic lane is wider to accommodate truck and collector traffic
- Street tree planting is more regular
- Cars don't have to park straddling curb in the planter strip

Positive Public Comments

- Grass concept is "friendly"
- Innovative compromise
- Trees in street visually looks better, works better
- More intimate feel on street (slower traffic?)
- Like wider parking space
- Better interface between trees and lighting
- Alternative A creates overlap zone with parking in the evening
- Grasscrete makes the parking zone look more like lawn than street
- Trees in parking zone make pedestrian area appear larger, street appear narrower

Negatives

- Increasing street width means sacrificing planter strip buffer
- Sidewalk is narrow and has no planter strip buffer from parked cars
- Grasscrete is difficult to maintain, another material could be used
- Bulb-out might not work with truck turning movements
- Streetlights in sidewalk zone further reduce sidewalk width

Negative Public Comments:

- Trees need to have lighter foliage, higher branches
- Greater loss of parking spaces
- Concern with maintenance of grass and files over time
- Prefer higher branches on trees or keeping trees near the sidewalk (as in Alternative B) in order to avoid conflict with trucks
- Installation and maintenance expense will be higher than typical street
- Relocation of curbs and drainage would be required

City Staff Comments

- City may be able to recommend tree species, which may not necessarily have to correspond to street tree master plan. (Parks and Recreation, Dennis Pawl)

COLLECTOR STREET: ALTERNATIVE B – TREES NEAR SIDEWALK, ROLLED CURB

Features

- Street trees located in 6' wide sidewalk zone
- Parking is next to sidewalk, separated from travel lane by rolled curb

Positives

- More parking on street than if trees in parking area
- Increases street width to 24' with 7' parking both sides
- Street sweeping easier with trees not in bulb outs
- Grasscrete may read as planter strip when cars not parked in it.
- Public Comments:
- Like Grasscrete concept (2 comments)
- Need trees further from middle
- Better alternative for street sweeping issues
- Greater width between trees accommodates through truck traffic

Negatives

- Trees reduce sidewalk area to 5' or less
- Eliminates buffer of planting strip
- Public Comment:
- Trees inset in sidewalk make sidewalk appear narrower

City Staff Comments:

- No grasscrete, would recommend some other durable material such as colored/stamped concrete (Public Works, Gary Heap)

COLLECTOR STREET: OTHER ALTERNATIVES

Limit Parking to only one side of street, retain narrow planter strip for trees and street lights

LOCAL STREET CONCEPTS – (GRANT STREET)

LOCAL STREET: ALTERNATIVE A – ADD TREES IN PARKING ZONE AND PLANTER STRIP
Grant Street from First to Monte Diablo
(Planter Strip)

Objectives
Make pedestrian crossing safer

Features
- Trees in Planting strip with additional trees in bulb-outs in parking zone
- Four-way stop signs on intersections of local streets
- 15 foot setback from right-of-way to street trees for visibility at intersections

Positives
- No loss of parking with trees in planting strip
- Public Workshop:
- Like this concept (2 times)
- As a homeowner, I like the separation from the street.
- No parking at intersections will make turning easier. Stop sign will do this too.
- Lots of trees
- Attractive lighting

Negatives
- Additional trees in parking lane would impact parking
- Houses on the corners of the intersections won't have any parking in front.
- I'm somewhat concerned with the loss of parking – only 1 car per 50 foot section of street.
- Concern about loss of parking due to tree planting in parking zone
- Consider vandalism/damage on low light fixtures.

City Staff Comments:
- Check in with Neil Osias regarding maintenance of landscape strip.
- Consider change in paving type or lower hedges in planter strip rather than shrubs to minimize conflict with parked cars (Parks and Recreation, Dennis Pawl)

LOCAL STREET: ALTERNATIVE B – TREES IN PARKING ZONE
Grant Street from Indian to Monte Diablo (monolithic curb)

Objectives

- Make crossing street safer and easier for pedestrians
- Add buffer between pedestrian and street
- Define street with closer set tree plantings
- Slow through traffic by decreasing apparent width of street

Features

- Bulb outs improve pedestrian crossing safety
- Additional trees within parking zone increase shade, buffer houses and pedestrians from street.
- Effective width of traffic lane remains unchanged.

Positives

- More trees, more attractive
- Safer crossing

Negatives

- Some potential loss of on street parking
- Street sweeping more complicated

Comments from Public Workshop Feb 5:

- Concern that scheme will reduce parking
- Comment that having trees in parking zone is worth the loss of parking
- Concern that cars in driveways obstruct sidewalk (but this is current situation)
- Proposed Alternative: Reduce frequency of trees in parking zone to maintain gesture of double row but retain more parking

General Comments on either Alternative:

- Concern about maintenance of both trees and shrubbery/ground cover
- Concern about tree roots uplifting sidewalks
- Concern about street light vandalism and damage from trucks, which is affected by height and location of lights

City Staff Comments:

- Concern it may be dark. Consider using small species in planter wells. (Parks and Recreation, Dennis Pawl)

GENERAL STREET RECOMMENDATIONS

Transit Access

- Add signs to show best bike and vehicle routes to transit center.
- Work with SamTrans to improve Bus stops, provide benches, signage, shelters, schedules

Bicycle Routes

- Designate new Bike routes along Claremont and Fremont and move bikes off Delaware onto quieter parallel streets.
- Identify connections from Bike route to schools, parks and downtown areas

Pedestrian Access

- Propose 4 way Stop signs at intersections of local streets
- Use street tree planting in parking strip and bulb outs to slow through traffic and improve safety of pedestrian crossings

Truck Access Routes

- Examine truck routes and possible steps to eliminate trucks cutting through neighborhoods

Street Tree Planting/Replacement

- Work with City and HANCSM to replace missing street trees.

Planter Strip Maintenance

- Reproduce suggested planting schemes for planter area
- Clarify City versus property owner role in maintaining new plantings

Fences

- Encourage attractive wooden picket fences or spindle designs as alternative to chain link or solid fences
- Enforce fence height limits and encourage replacement of tall fences with lower fences to encourage "eyes on the street" and improve pedestrian safety.

Crosswalks

- Install two separate ADA ramps rather than one at corners
- Consider four way stop signs at on major pedestrian crossing points.

8.3 WORKSHOP ALTERNATIVES

Delaware Street

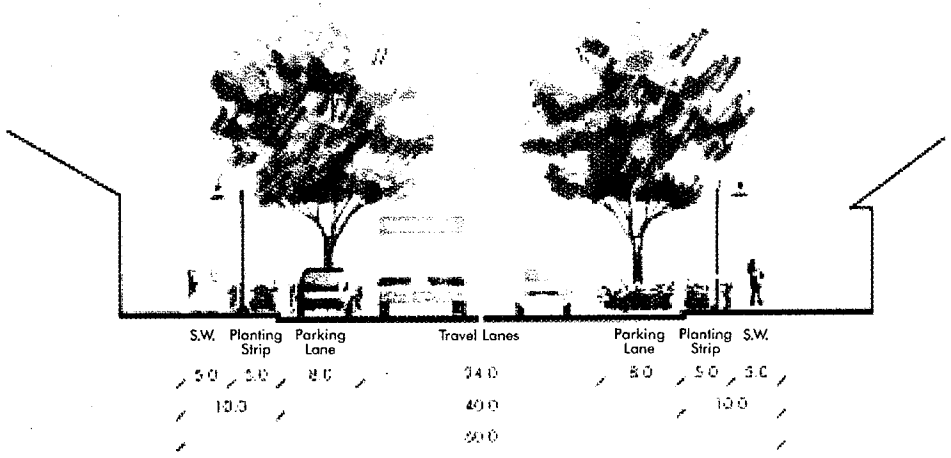
Alternative A
Alternative B
Alternative C

Tilton Ave

Alternative A
Alternative B

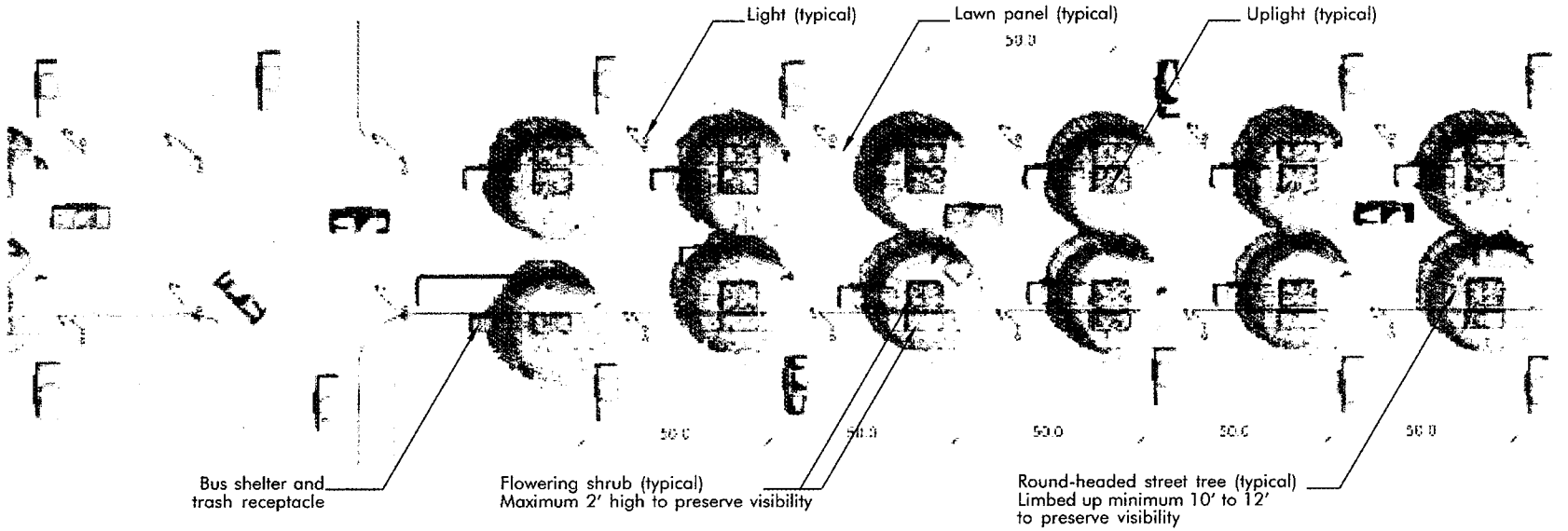
Grant Street

Alternative A
Alternative B



Delaware Street
(Arterial)
Alternative A

FREEDMAN TUNG & BOTTOMLEY
CITY DESIGN & TOWN PLANNING



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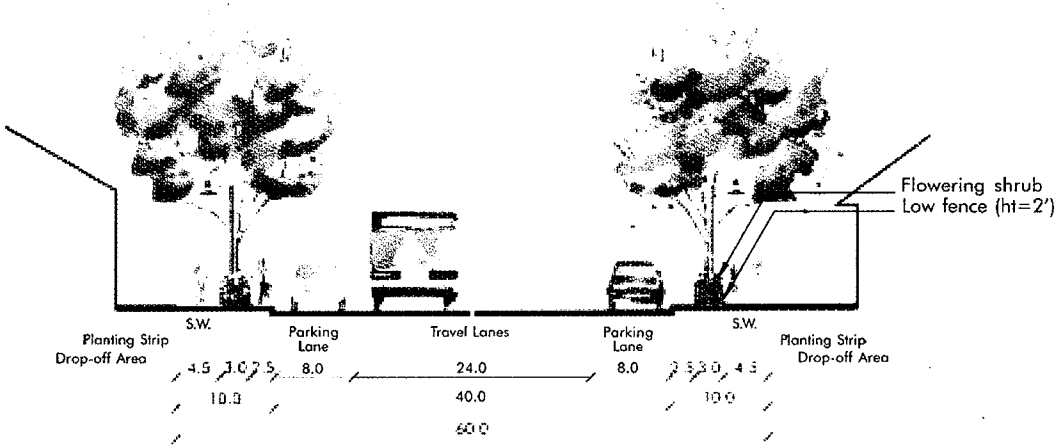
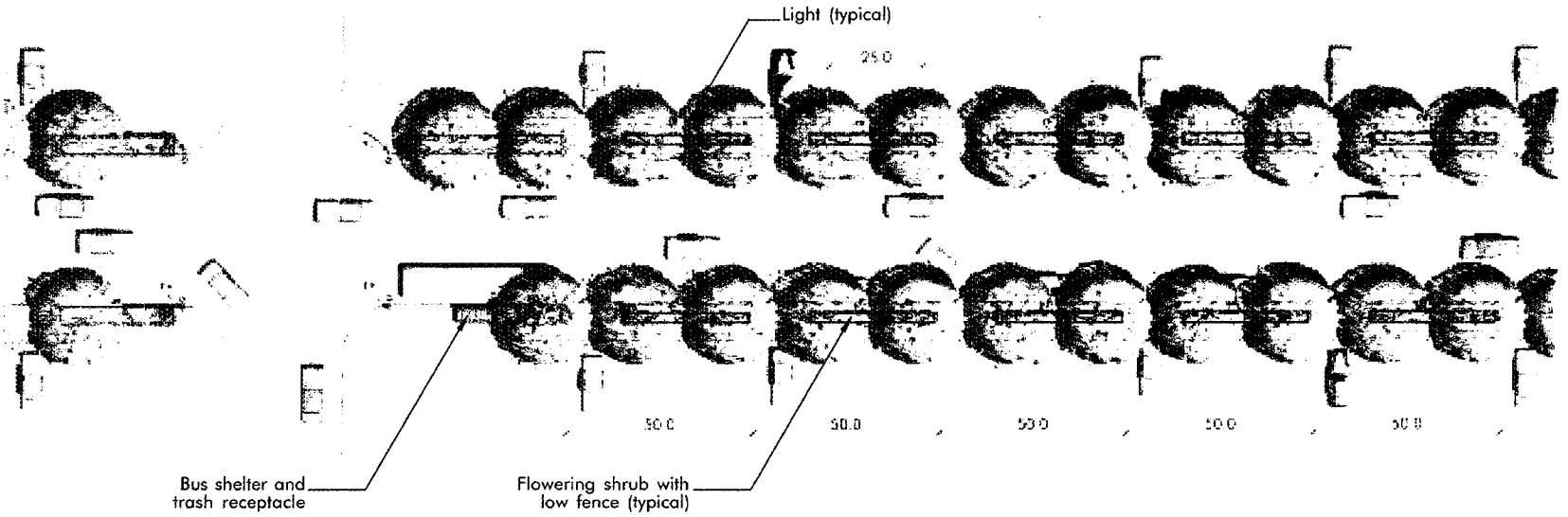
Delaware Street
(Arterial)
Alternative B

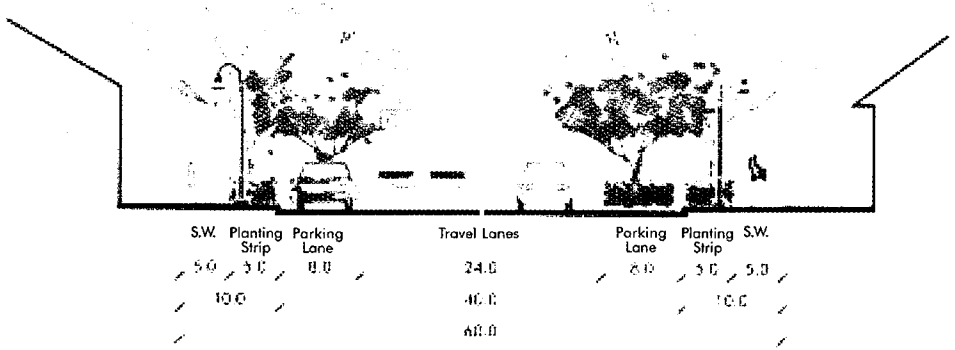
FREEDMAN TUNG & BOTTOMLEY
CITY DESIGN & TOWN PLANNING

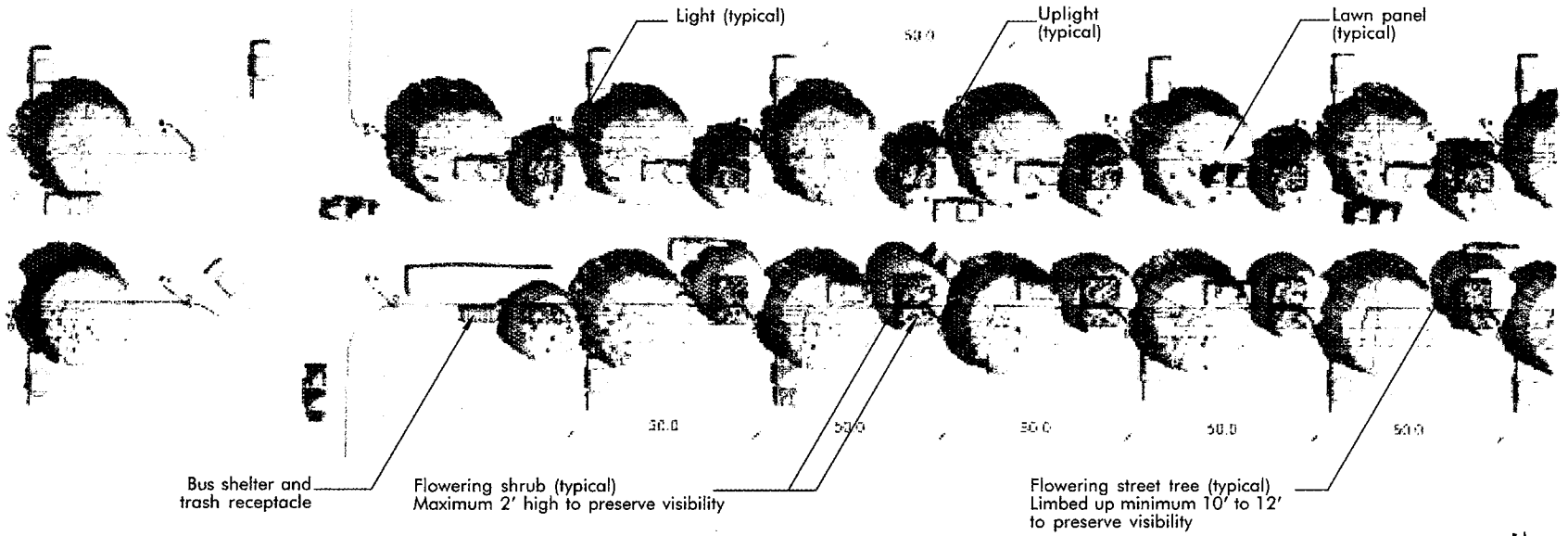




Delaware Street
(Arterial)
Alternative C

FREEDMAN TUNG & BOTTOMLEY
CITY DESIGN & TOWN PLANNING





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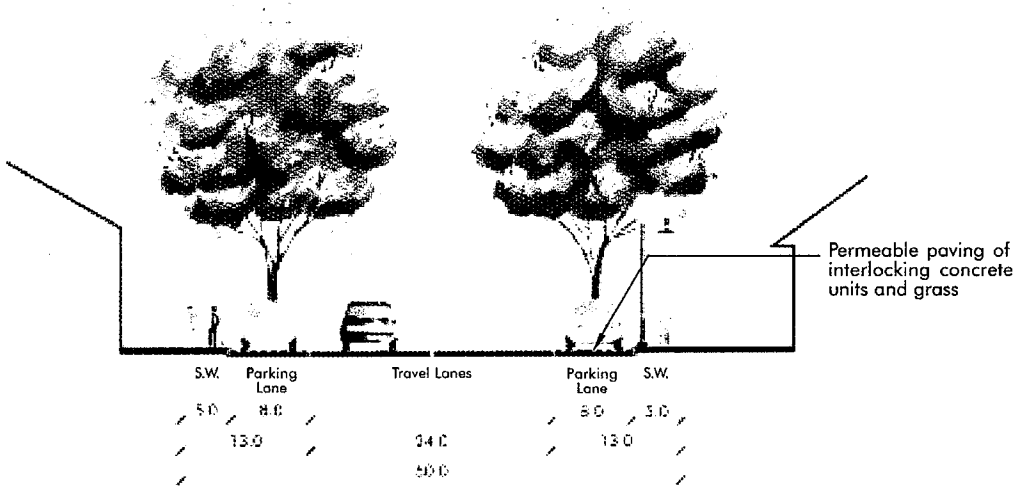
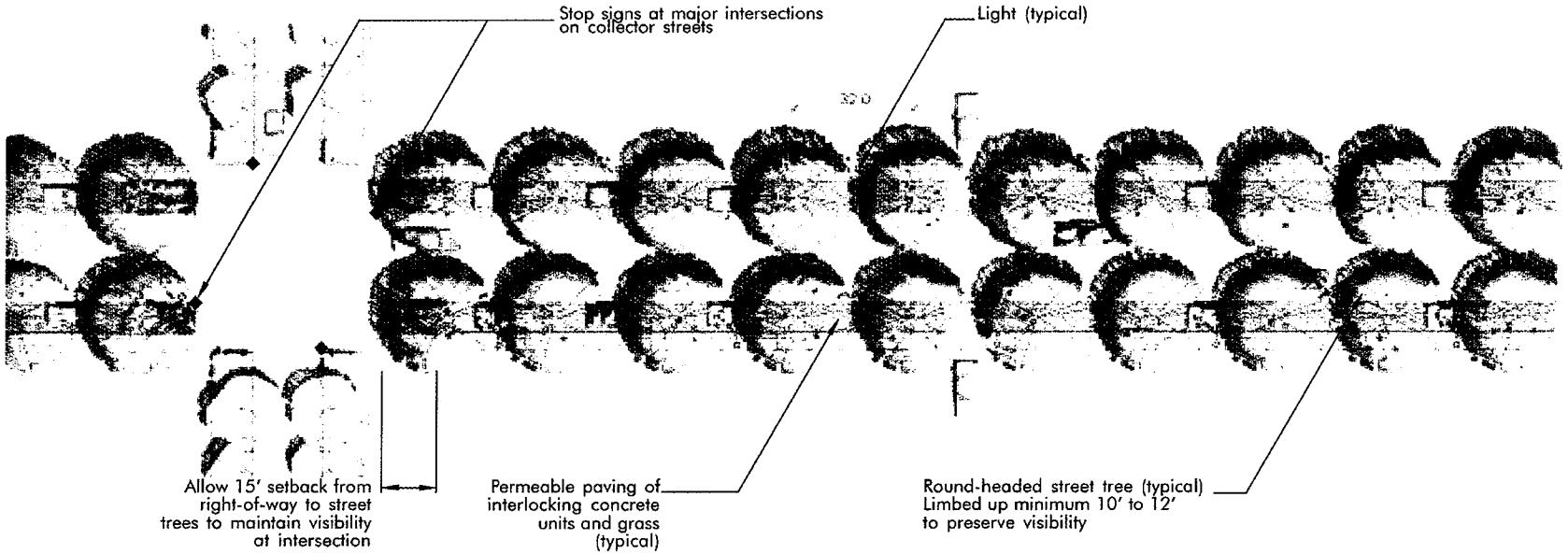
Tilton Avenue
(Collector)
Alternative A

FREEDMAN TUNG & BOTTOMLEY
CITY DESIGN & TOWN PLANNING





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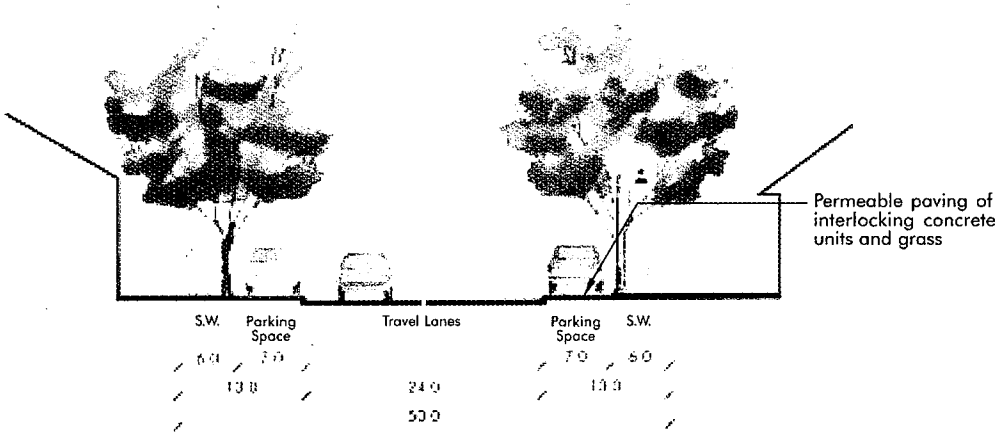
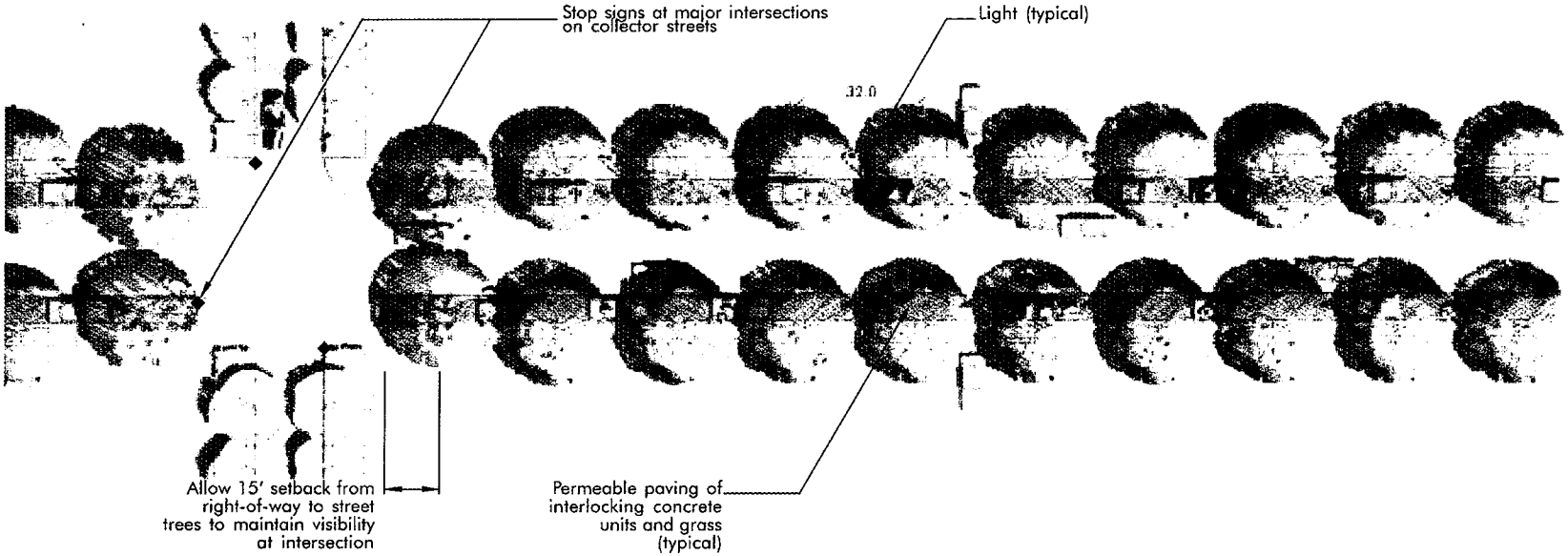
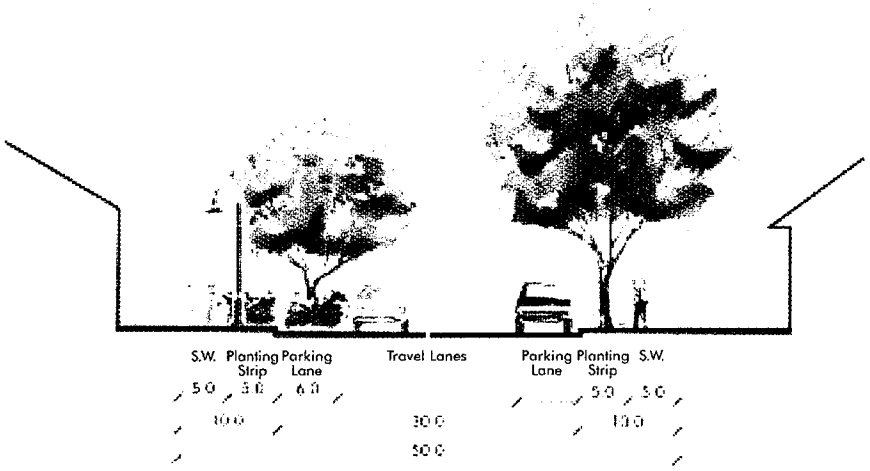
City of San Mateo

Tilton Avenue
(Collector)
Alternative B

FREEDMAN TUNG & BOTTOMLEY
CITY DESIGN & TOWN PLANNING



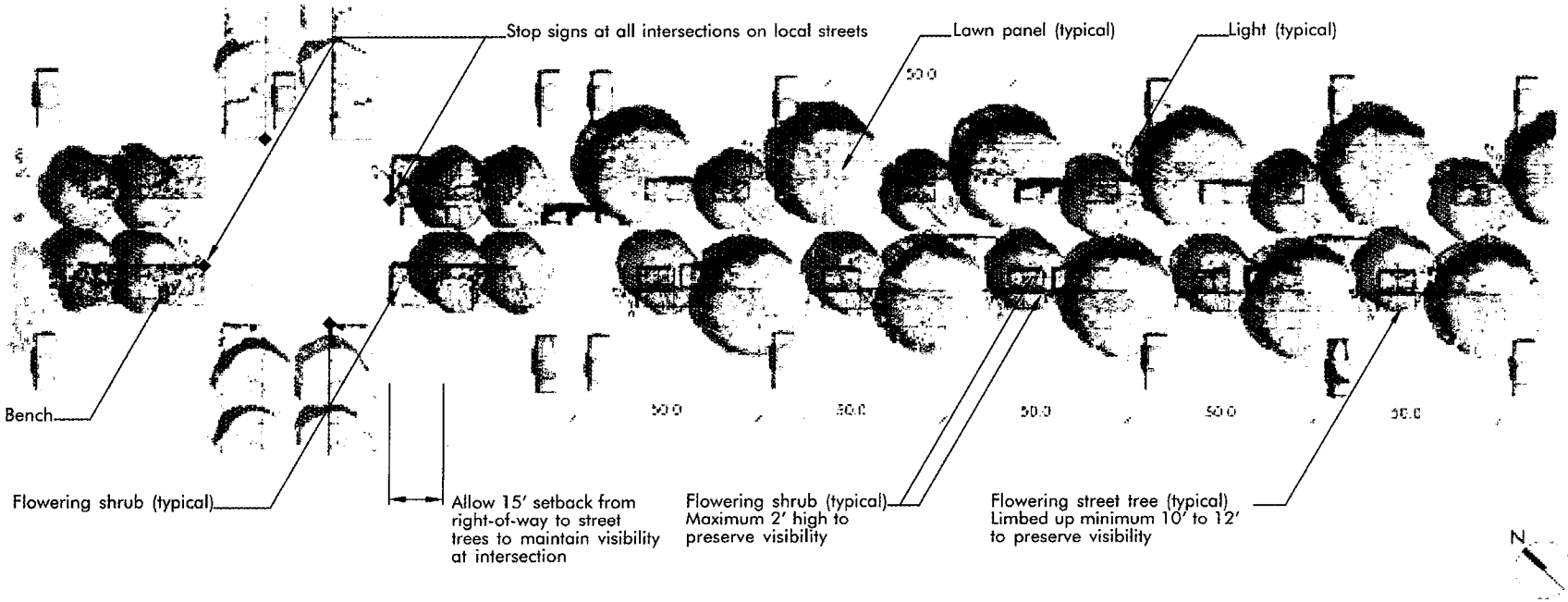




Grant Street

Alternative A

FREEDMAN TUNG & BOTTOMLEY
CITY DESIGN & TOWN PLANNING



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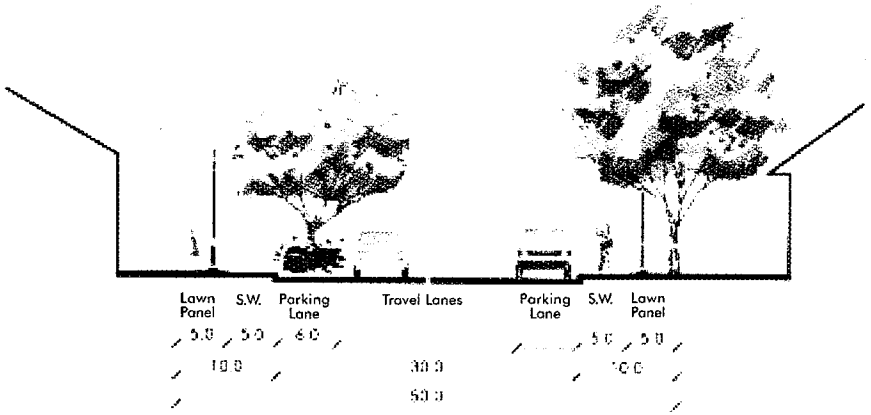
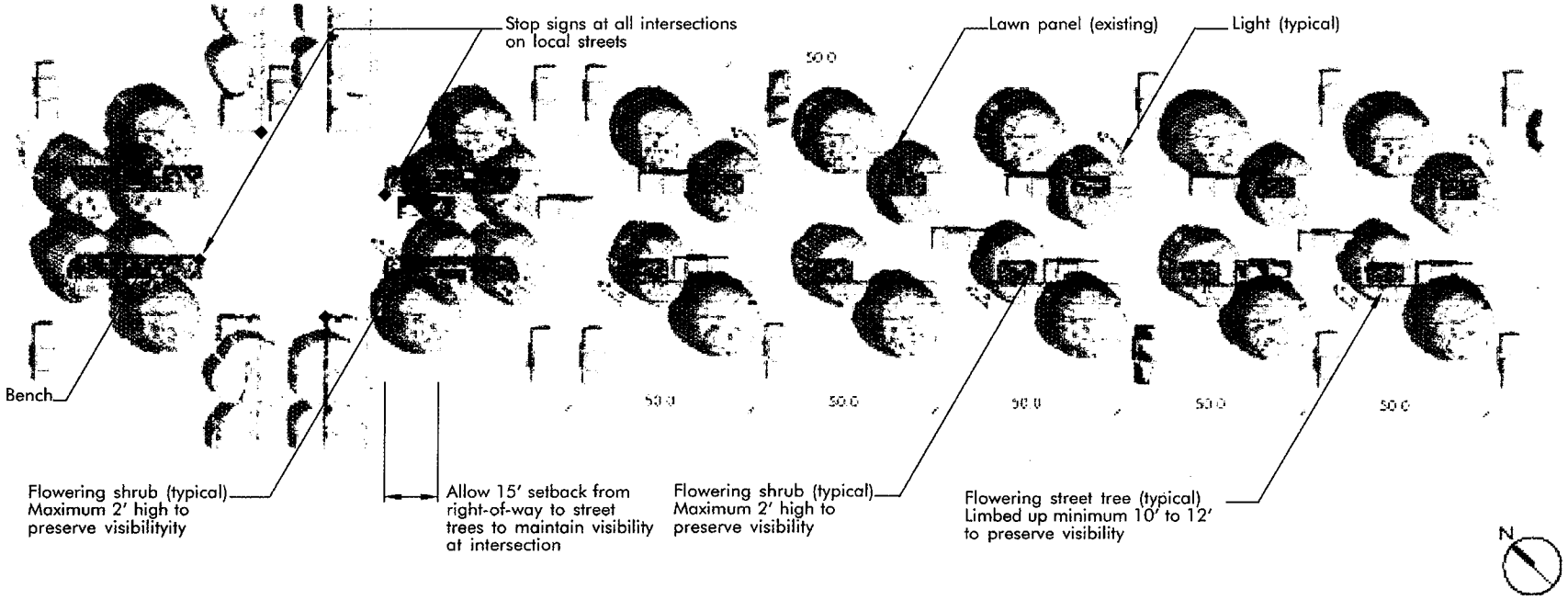


Grant Street

(between Indian and Monte Diablo Streets)

Alternative B

FREEDMAN TUNG & BOTTOMLEY
CITY DESIGN & TOWN PLANNING



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